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ABSTRACT

This final report, resulting from a major, multi-site, multi-method investigation of student teaching, first details reasons for and purposes of the study. Data collection and analysis methods and procedures are specified, and a comprehensive demographic description of the sites and study participants is provided. Personal and professional characteristics of individuals in the study are described, culminating in profiles of the "average" student teacher, cooperating teacher, and university supervisor. The contexts of student teaching are described, with attention on formal and informal organizational properties which affect the experience. Supervision and evaluation of student teaching are described and discussed in relation to formal procedures and in terms of the degree of congruity achieved across data bases. Several outcomes of student teaching are identified and reported, including final evaluations, student teacher satisfaction, the degree to which expectations are met, and performance ratings. Findings pertaining to observational data of both student and cooperating teachers are presented, organized around variables established as related to effective teaching. The final chapter discusses study findings in relation to the broad picture of teacher education and includes recommendations for practice and further research. (Author/JD)

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CLINICAL PRESERVICE TEACHER EDUCATION:
FINAL REPORT OF A DESCRIPTIVE STUDY

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Gary A. Griffin, Program Director

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Table of Contents

Abstract. xvii

Preface xix

CHAPTER 1. RATIONALE, PROBLEM, PURPOSES. 1

- Why Study Student Teaching?. 2
- Conceptualization of the Research Effort 7
- Purposes of the Study. 10
  - Individual Differences in Teacher Education. 11
  - The Student Teaching Experience - Interactions 11
  - The Contexts of Student Teaching 12
- Organization of the Report 13

CHAPTER 2. METHODS AND PROCEDURES. 15

- Background Questionnaire 15
- Schedule of Data Collection. 15
- Personality Instruments. 19
- Cognitive Instruments. 20
- Teacher Instruments. 23
- Outcome Instruments. 26
- Qualitative Data Collection Procedures 31
- Quantitative Data Analysis 36
- Qualitative Data Analysis. 38
- Integrating Quantitative and Qualitative Data. 42

CHAPTER 3. PARTICIPANT AND SITE DESCRIPTION. 45

- Participant Description. 45
- Site Description 68
- Summary. 83

CHAPTER 4. PERSONAL AND PROFESSIONAL CHARACTERISTICS OF PARTICIPANTS 87
Construct Validity 87
Site, Sample and Participant Differences 93
Participant Change During Student Teaching 109
Profiles of the Average Student Teacher, Cooperating Teacher, and University Supervisor 123
CHAPTER 5. THE CONTEXT OF CLINICAL PRESERVICE TEACHER EDUCATION. . . 127
Characteristics of Participating Schools and Their Populations. 127
Bilingual Education. 128
Busing 128
School Neighborhood Characteristics. 128
Additional Context Variables 129
Perceptions of Contest by Student Teaching Participants. 131
Summary. 134
Formal Organizational Properties of the Two Participating Universities 135
Requirements for Admission to the Teacher Education Programs . . 136
The Placement of Student Teachers. 137
Student Teaching Requirements. 138
Certification and/or Credentialing 140
Grievances 142
Placement Services 144
Summary. 144
Informal Organizational Properties of Universities 145

Informal Organizational Properties Related to Student Teachers . 145
Informal Organizational Properties of the Universities Relating to the University Supervisor. 146
Informal Organizational Properties of the Public Schools Relating to the Cooperating Teacher. 157
Summary. 164
CHAPTER 6. THE SUPERVISION AND FORMATIVE EVALUATION OF STUDENT TEACHERS 167
Supervision and Formative Evaluation - A Description 168
Conference Data. 168
Summary. 183
Congruence of Supervisory and Evaluative Situations with University Protocols 187
University Protocols 187
Discussion 190
Congruence of Supervisory and Evaluative Situations with Participants' Perceptions. 191
Journals 191
Interviews 195
Discussion 197
Summary. 199
Conclusion 200
Discussion of Findings 200
Implications for Teacher Training. 203
Recommendations for Future Study 204
Chapter Summary. 205

CHAPTER 7. OUTCOMES OF THE STUDENT TEACHING EXPERIENCE 207
Descriptive Statistics 207
Correlational Data 220
Inferential Statistics 242
Chapter Summary 256
CHAPTER 8. TEACHING. 261
Instructional Management 270
Managing Pupil Behavior 280
Appropriate Student Behavior 285
Inappropriate Student Behavior 291
Teacher Reaction to Inappropriate Behavior 292
Materials 301
Administrative Activity 306
Discussion 310
Limitations 316
Summary 318
CHAPTER 9. CONCLUSIONS 319
Personal and Professional Characteristics of Participants 319
Participant Change 321
The Context of Student Teaching 322
Supervision and Formative Evaluation of Student Teachers 324
Outcomes 327
Teaching 329
Research Procedures 322
Discussion of Conclusions 334

REFERENCE NOTES 339

REFERENCES 343

List of Tables

2.1 Expectations and Satisfaction of Student Teaching. 27

2.2 Means, Standard Deviations, and Ranges of Performance Rating Scales. 28

2.3 Intercorrelation Triangles of Performance Rating Scales by Triad Role 29

3.1 Design of Student Teaching Study 47

3.2 Descriptive Statistics for Total Sample from Background Questionnaire 48

3.3 List of Languages and Number of Schools in Which They Were Spoken 81

4.1 Intercorrelations of Constructs Measured in Student Teaching Study 90

4.2 Means and Standard Deviations of Personality, Attitude, Cognitive, and Professional Measures by Site, Sample, and Participant Type. 94

4.3 Summary of ANOVA of Educational Preference Scores by Site, Participant Type, and Sample. 97

4.4 Summary of ANOVA of Empathy Scores by Site, Participant Type, and Sample 99

4.5 Summary of ANOVA of Flexibility Scores by Site, Participant Type, and Sample 101

4.6 Summary of ANOVA of Teacher Concerns Self Subscale by Site, Participant Type, and Sample. 103

4.7 Summary of ANOVA of Teacher Concerns Task Subscale by Site, Participant Type, and Sample. 104

4.8 Summary of ANOVA of Quick Word Test Scores by Site, Participant Type, and Sample 106

4.9 Summary of ANOVA of Conceptual Level Scores by Site, Participant Type, and Sample 108

4.10 Means and Standard Deviations of the Repeated Measures of Empathy and Locus of Control by Participant Type 110

4.11 Means and Standard Deviations of the Repeated Measures of Flexibility and Educational Preference by Participant Type 111

4.12 Means and Standard Deviations of the Repeated Measures of Teacher Concerns Checklist Self and Task Factors by Participant Type 112

4.13 Means and Standard Deviations of the Repeated Measures of Teacher Concerns Checklist Impact Factor and Self-Esteem by Participant Type 113

4.14 Means and Standard Deviations of the Repeated Measures of Conceptual Level by Participant Type 114

4.15 Summary of Repeated Measures ANOVA of Student Teachers' Self Concerns. 116

4.16 Summary of Repeated Measures ANOVA of University Supervisors' Self Concerns 117

4.17 Summary of Repeated Measures ANOVA of University Supervisors' Impact Concerns 118

4.18 Summary of Repeated Measures ANOVA of Cooperating Teachers' Flexibility Scores 119

4.19 Summary of Repeated Measures ANOVA of Cooperating Teachers' Flexibility Scores 120

4.20 Summary of Repeated Measures ANOVA of Student Teachers' Educational Preference Scores. 121

4.21 Summary of Repeated Measures ANOVA of Cooperating Teachers' Educational Preference Scores. 122

6.1 Cooperating Teacher-Student Teacher Conference "Talk". 171

6.2 Process Data from Cooperating Teacher-Student Teacher Conferences. 173

6.3 Content Data from Cooperating Teacher/Student Teacher Conferences--All Participants. 175

6.4 Content Data from Cooperating Teacher/Student Teacher Conferences by Participants. 177

6.5 Content Data from Cooperating Teacher/Student Teacher Conferences Dealing with Teaching - Mean Number of Typed Lines and Percentages for All Participants 180

6.6 Content Data from Cooperating Teacher/Student Teacher Conferences Dealing with Teaching - Mean Number of Typed Lines and Percentages by Participant 181

6.7 Content Data from Cooperating Teacher/Student Teacher Conferences Dealing with the Organization of Student Teaching 184

6.8 Content Data from Cooperating Teacher/Student Teacher Conferences Dealing with the Organization of Student Teaching - By Participant Role 185

6.9 Content Data from Journals: Percentage of Journal Lines Devoted to Topic by Participant. 194

7.1 Expectations and Satisfaction of Student Teaching. 209

7.2 Means and Standard Deviations of Student Teacher, Cooperating Teacher, University Supervisor Expectation Scales, and Student Teacher Satisfaction Scale by Site and Sample. 210

7.3 Means and Standard Deviations of Performance Ratings 214

7.4 Descriptive Statistics for Student Teachers' Mean Ratings on Their Final Evaluations 218

7.5 Correlations between Student Teaching Satisfaction Scores and Supervisor or Cooperating Teacher Mean Final Evaluation Ratings of Student Teachers 222

7.6 Correlations between Student Teaching Expectations Subscale Scores and Supervisor or Cooperating Teacher Mean Final Evaluation Ratings of Student Teachers. 223

7.7 Correlations between Student Teaching Performance Ratings by Self, Supervisor, and Cooperating Teacher, with Supervisor or Cooperating Teacher Mean Final Evaluation Ratings of Student Teacher 224

7.8 Correlation of Entry Characteristics with Expectations, Satisfaction, and Performance Ratings - Student Teachers . . . 230

7.9 Correlations of Residual Scores with Expectations, Satisfaction and Performance Ratings - Student Teachers. . . . 232

7.10 Correlations of Entry Characteristics with Expectations and Performance Ratings - Cooperating Teachers 234

7.11 Correlations of Residual Scores with Expectations and Performance Ratings - Cooperating Teachers 235

7.12 Correlations of Entry Characteristics with Expectations and Performance Ratings - University Supervisors 237

7.13 Correlations of Residual Scores with Expectations and Performance Ratings - University Supervisors 239

7.14 Means of Student Teacher Satisfaction Scores by Site and Sample. 243

7.15 Means, Standard Deviations, and Ranges of Performance Rating Scales. 244

7.16 Means of Expectation Scores by Site, Sample, Participant Type and Subscale. 245

7.17 Summary of ANOVA of Student Teacher Satisfaction Scores by Site and Sample. 246

7.18 Summary of ANOVA of the Orientation Subscale of the Student Teacher Expectations Scale by Site and Sample. 247

7.19 Summary of ANOVA of Competence Subscale of the Student Teacher Expectations Scale by Site and Sample. 248

7.20 Summary of ANOVA of the Time Subscale of the Student Teacher Expectations Scale by Site and Sample 249

7.21 Summary of ANOVA of the Cooperating Teacher Expectation Scale by Site and Sample 250

7.22 Summary of ANOVA of the University Supervisor Expectations Scale by Site and Sample 251

7.23 Summary of ANOVA of Student Teacher Performance Ratings by Site, Sample, and Participant Perspective 252

7.24 Summary of ANOVA of Cooperating Teacher Performance Ratings by Site, Sample, and Participant Perspective 253

7.25 Summary of ANOVA of the University Supervisor Performance Ratings by Site, Sample, and Participant Perspective 254

8.1 Sample Means and Standard Deviations for Variables Within Behavior Categories 263

8.2 Occurrence of Student Teacher-Cooperating Teacher Interactions 268

8.3 Means and Standard Deviations of Cooperating Teachers and Student Teachers for Instructional Management 271

8.4 Means and Standard Deviations of Cooperating Teachers and Student Teachers at Time 1 and Time 2 for Instructional Management 272

8.5 Means and Standard Deviations for Cooperating Teachers and Student Teachers for Managing Pupil Behavior 281

8.6 Means and Standard Deviations of Cooperating Teachers and Student Teachers at Time 1 and Time 2 for Managing Pupil Behavior 282

8.7 Means and Standard Deviations of Cooperating Teachers and Student Teachers for Appropriate Student Behavior 286

8.8 Means and Standard Deviations of Cooperating Teachers and Student Teachers at Time 1 and Time 2 for Appropriate Student Behavior 287

8.9 Means and Standard Deviations for Cooperating Teachers and Student Teachers for Inappropriate Student Behavior 293

8.10 Means and Standard Deviations of Cooperating Teachers and Student Teachers for Time 1 and Time 2 for Inappropriate Student Behavior 294

8.11 Means and Standard Deviations for Cooperating Teachers and Student Teachers for Teacher Reaction to Inappropriate Behavior 295

8.12 Means and Standard Deviations for Cooperating Teachers and Student Teachers for Time 1 and Time 2 for Teacher Reaction to Inappropriate Behavior 297

8.13 Means and Standard Deviations of Cooperating Teachers and Student Teachers for Materials 302

8.14 Means and Standard Deviations for Cooperating Teachers and Student Teachers for Time 1 and Time 2 for Materials 303

8.15 Means and Standard Deviations of Cooperating Teachers and Student Teachers for Administrative Activities 307

8.16 Means and Standard Deviations for Cooperating Teachers and Student Teachers for Time 1 and Time 2 for Administrative Activity 308

List of Figures

1.1 Institutional contexts and student teaching. 9

2.1 Data Collection Instruments and Schedule for General Sample and Intensive Sample. 16

3.1 The individual roles and responsibilities of individuals involved in the student teaching experienc 70

3.2 Prescribed university curricula. 73

3.3 Observation forms. 75

3.4 Final evaluation forms 76

4.1 Instruments Used in the Student Teaching Study by Constructs . . 88

4.2 Site by Sample Interaction of Empathy Scores 98

4.3 Site by Participant Type Interaction of Flexibility Scores . . .100

6.1 Coding Categories Used in the Analysis of Conference Data. . . .170

7.1 Final Evaluation Forms 216

Abstract

This is the final report in a series of works resulting from a major, multi-site multimethod investigation of the preservice clinical teacher education experience, or student teaching. First, the reasons for and purposes of the study are detailed. Methods and procedures used for collecting and analyzing all qualitative and quantitative data are specified, and a comprehensive demographic description of the sites and study participants is provided. Personal and professional characteristics of individuals in the study are described next, culminating in a set of profiles of the "average" student teacher, cooperating teacher, and university supervisor. The contexts of student teaching are described, with attention given to the formal and informal organizational properties which impact the experience. Also, the supervision and formative evaluation in student teaching is described through several data sources, and discussed in relation to formal procedures and in terms of the degree of congruity achieved across data bases. Several outcomes of student teaching are identified and reported, including final evaluations, student teacher satisfaction, the degree to which expectations were met, and performance ratings. Next the findings pertaining to observational data of both student and cooperating teachers are presented, organized around variables already established as being related to "effective" teaching. The final chapter discusses all of the findings in relation to the broad picture of teacher education, including specific conclusions resulting from the study as well as recommendations for practice and further research.

Preface

Central to the implementation of a professional education program is the opportunity to learn about, practice, and demonstrate knowledge and skill considered necessary to function in the profession. In teacher education, the major program component in which this opportunity is provided is student teaching.

Although student teaching has long been considered the capstone of a teacher preparation sequence in colleges and universities, it has not received comprehensive research attention. The Research in Teacher Education (RITE) program area of the Research and Development Center for Teacher Education at the University of Texas at Austin developed and implemented a multi-site, multi-method, semester-long study of student teaching during the 1981-1982 academic year. The objectives of the study were centered on providing a rich description of the phenomenon such that it could be better understood and, it is hoped, made more effective.

This document is the final report of that study. It is one of a series of published statements that have grown out of the extensive data sets that were developed for the study. Other more specific and technical treatments of many of the themes in this report are noted throughout the text.

A research effort as complex as this one could not have been accomplished without the active participation of a group of intellectually able and practically sensible persons. In addition to the persons named on the title page of this document, many others have helped us accomplish our research goals. The late Helen Durio made a major impact upon the conceptualization of the study, substantively and methodologically. Significant contributions were made by Heather Carter, Hugh Munby, Linda Mora, Luann McLarry, and Lupita Guzman. Pauline Walker, Jan Nespor, Leticia Galindo, and Jennie Birchall spent many hours coding qualitative data. Freddie Green and Vicky Rodgers provided both personal and technical support during data collection and analysis and in their efficient production of this and other reports.

Finally, the more than two hundred public school and university participants in the study, who have been promised anonymity, have earned our gratitude for allowing the RITE staff to become part of their professional lives. Their personal and professional generosity demonstrated a major commitment to providing answers to persistent questions about student teaching.

Gary A. Griffin
Principal Investigator

CHAPTER 1

RATIONALE, PROBLEM, PURPOSES

This document presents the findings of a large-scale, multi-site, multi-method descriptive study of preservice clinical teacher education, typically known as student teaching, conducted by the Research in Teacher Education (RITE) program area of the Research and Development Center for Teacher Education at the University of Texas at Austin. The study was comprehensive in its attention to a large number of variables, singly and in interaction. The study was also comprehensive in that it focused not only on student teachers but also on cooperating teachers, university supervisors, school system and higher education officials, and the university and public school settings in which the clinical teacher education experiences were enacted.

Data collection for the study took place during the fall of 1981. The participants in the study were engaged in the student teaching experience as a consequence of their membership in two large universities as student or faculty and/or in one or more of thirty-five elementary and secondary schools providing placements for student teachers. The schools were located in two cities, one metropolitan and highly urban in nature and one mid-sized and less urban. These differences and others noted elsewhere in this report provided the research team with an unprecedented opportunity to examine the student teaching experience from a variety of perspectives in order to determine both similarities and differences in programs, practices, and participant characteristics.

This final report is one of a series of publications which emerged from the inquiry into clinical preservice teacher education. The other reports tend to be more technical in nature and more detailed in regard to certain of the research questions and issues reported herein. These publications are noted in the text of this document where appropriate and the reader is urged to examine them when more specific or detailed information is desired.

The purposes of this introductory chapter are to (1) provide a rationale for inquiring into preservice clinical teacher education, (2) advance the conceptualization of the experience which guided the present research effort, (3) report the purposes of the study, and (4) provide an overview of the remainder of this final report.

Why Study Student Teaching?

The RITE program accepted in 1980 the mission of promoting research-based understanding of teacher education. This mission will be accomplished as a consequence of sustained, systematic inquiry. Obviously, the availability of human and material resources influences the degree of comprehensiveness which can be expected of RITE. After a period of deliberation, formal and informal, with practitioner and research colleagues, it was decided that RITE would concentrate its initial research efforts on the element which distinguishes teacher education from many other fields: its clinical component. This study is the first of a series which will examine clinical teacher education at preservice, induction, and inservice levels of experience.

The decision to focus upon the clinical education of teachers-to-be and career teachers led logically to a concentration of effort upon student teaching. At least six arguments can be used to support the study of student teaching by a national research center concerned with educational issues and problems.

First, it is conventional wisdom that teachers, when recalling their teacher education programs, acknowledge that the student teaching experience is believed to have been the most valuable and the most helpful component of that program. One might argue that this position is dependent more upon the principle of recency and the relative direct relation between student teaching and practice in classrooms than the content of the experience. It has been pointed out, for example, that when teachers say they weren't "taught" something in college courses, it may be that they do not recall that teaching because of the myriad learning opportunities presented to them. Yet, the persistence and pervasiveness of the expressed belief that student teaching is the most beneficial component of preservice teacher education suggests the need to better understand it.

Second, there does not presently exist a solid knowledge base regarding student teaching. A survey of literature related to teacher education reveals a paucity of information regarding student teaching from a research perspective. When descriptors which would logically be designated for student teaching are added to the more general teacher education ones (e.g., student teaching, clinical education, clinical experiences for teachers, etc.), the yield from ERIC searches is not substantially greater or qualitatively different. What one finds is a set of proposals for action with some reports of practice. Research-based propositions are conspicuous by their absence.

Journals of professional groups concerned with teacher education are potential sources of research-derived understanding and proposals for improving practice. These publications, however, tend to include reports of practice, as noted above, and/or prescriptions for selection of cooperating teachers and examples of "desirable" experiences for student teachers. There is little evidence that these proposals, prescriptions, and propositions are based on comprehensive programs of research. The current research-derived knowledge base appears to be too limited to direct decisions and practices in clinical experiences for prospective teachers. The RITE study is believed to be a means to act upon this situation.

Third, there have been many criticisms of the tenuous link between colleges and universities and school systems. This criticism has led to a concern for the development of what has come to be called "institutional linkage" and to the concern that persons be helped to understand the role of "linkers." The assumption that institutions with like missions and with similar concerns regarding those missions should be in some mutually beneficial relation to one another is a valid one. But, as Miles (1964) has pointed out, schools tend to live in isolation from other schools and from institutions with like purposes and like activities.

The most persistent and common programmatic link between public schools and colleges and universities is the student teaching component of teacher preparation. Students in colleges or schools of education are expected, as part of their courses of study, to engage in teaching in actual classrooms. Institutions of higher education establish relationships with nearby school systems whereby the college students work as teachers under the guidance of teachers in service. Typically, the college student is assigned to a classroom for a period of time lasting from 10 to 30 weeks wherein he or she gradually assumes responsibility for the class's activities. More often than not, this relationship between cooperating teacher and student teacher is overseen by a higher education person and by an administrative officer of the local school system.

Observation of practice suggests that this relationship between the higher education institution and the local school system may be more beneficial for the college or university than the school system. The college or university receives convenient sites for its students teachers' clinical practice, thus facilitating completion of a state-mandated requirement at little cost to the college or university. Beyond some additional instructional assistance in isolated classrooms, however, the benefits appear to be minimal from the perspective of the school system. In order to increase the power of the experience for the preservice student, increase the benefits to the participating teachers and the school systems, and inform the academic and professional courses of study presented to teacher candidates, it appears necessary to better understand the nature of this linkage.

Fourth, educators are relatively naive about the personal and professional characteristics of an "effective" cooperating teacher and are unclear as to the most efficacious match of student teacher and cooperating teacher. There is only speculation regarding the influence of different contexts in which both cooperating teacher and student teacher interact. There is unsureness about defined activities for student teachers and/or cooperating teachers. Yet, these teachers being certified and licensed warrant the best and most effective experiences possible. A carefully constructed and logically derived set of propositions from a solid research base will aid in decision making regarding these professional education opportunities.

Fifth, it is likely that the combination of declining enrollments in colleges of educations, the aging of teachers in service, and an observable increase in births will result in the need for more teachers during the 1980's and early 1990's than might be expected in an assessment of the current placement scene. A similar need subsequent to the "baby boom" of the 1940's was met by putting into practice a rush of ill-conceived programs. A systematic effort now to understand the process of teacher education will aid in planning for quality programs to meet the projected need for large numbers of well qualified teachers.

Sixth, the study of the clinical component of teacher education provides the additional opportunity to understand teachers at varying points on a career continuum and from multiple perspectives. A principal focus of needed research into this arena is the role, function, activities, and apparent effects of cooperating teachers, along with the concerns that neophyte teachers, relatively new teachers, and experienced teachers have about such issues as institutional press, context influence, changing pupil populations, and professional development needs. Examination of the student teaching experience also reveals strengths and weaknesses of preservice programs of study from the perceptions of college students and teachers in service. The implications are potentially powerful in that match-mismatched relationships between courses of study and other variables such as school expectations, staff development opportunities, teacher decision making, and teacher-community relationships need to be better understood.

In summary, among the arguments selected to support the inclusion of this study of the clinical component of preservice teacher education in RITE's research agenda are (1) the value placed upon that experience by teachers in service and teacher candidates, (2) the relatively sparse knowledge base regarding the experience, (3) the possibility that a better understanding of this aspect of teacher education will increase the benefits related to higher education and school system relationships, (4) the persistence of teacher education as an academic program during times of decreased demand for teachers, (5) the demographically-based speculation that the demand for teachers will increase in the relatively near future, and (6) the opportunity such a study offers in terms of inquiry related to teacher education issues.

Conceptualization of the Research Effort

Any large-scale inquiry requires a guiding conceptualization to provide direction for data collection and analysis as well as to delimit the number of possible avenues of questioning. This descriptive study depended upon a conceptualization with three principal components: (1) the participants in student teaching (the university supervisor, the cooperating teacher, and the student teacher); (2) the interactions, personal and professional, between and among these participants; and (3) the contexts of the schools and universities in which student teaching is carried forward. These components were examined in isolation and in their interactiveness.

Regarding the first component, the participants, it was considered important to determine, from a variety of perspectives, what personal and professional attributes cooperating teachers, student teachers, and university supervisors bring to the work of student teaching. As will be noted in subsequent sections of this report, certain constructs were selected for inclusion in this study on the evidence provided by prior inquiries. For a detailed review of the research and propositions which led the RITE research team to include these constructs, see Griffin, Hughes, Defino, & Barnes (Note 1).

The participants in this descriptive study responded to a battery of instruments, certain of the measures administered once and others administered three times. The personal and professional attributes examined by the instruments were Empathy, Locus of Control, Flexibility, Educational Preference, Teacher Concerns, Self-Esteem, Conceptual Level, Cognitive Style, Work-Life Perceptions, and Vocabulary.

The second component of the conceptualization, interactions of the participants, rests largely upon the cooperating teacher-student teacher-university supervisor relationship. Although previous work has addressed the nature of the relationship among university supervisors, cooperating teachers, and student teachers, it is believed that this study would contribute to the understanding of that relationship such that programs designed to select and instruct participants in the student teaching experience could be developed.

Prior research has indicated several influences upon human interaction. For example, Conceptual Level (Hunt, 1971) has been indicated, as an influence as have the cognitive processing abilities of supervisors (Glassberg & Sprinthall, 1980). Also, there may be differences in the expectations brought to the interactions and the satisfaction which emerges from them. These expectations and levels of satisfaction are probably influenced to some degree by the person's educational philosophy. As noted above, these personal/professional characteristics were examined in terms of individual participants in the RITE study as well as in their relation to interactions of participants.

The third component included in the conceptualization, contexts, was examined as it impinged, positively and/or negatively, upon the student teaching experience. Multiple contexts, some overlapping and some distinct, were included as objects of data collection for the present study.

Figure 1.1 illustrates the complexity of institutional relationships which come to bear upon the personal and organizational variables related to the student teaching experience. When the cooperating teacher is identified by a school system official and then selected by a college-university supervisor of student teaching to participate in a student teaching program, there is the interaction of the cooperating teacher, the system of governance of the school system, and the policy and procedural systems of the

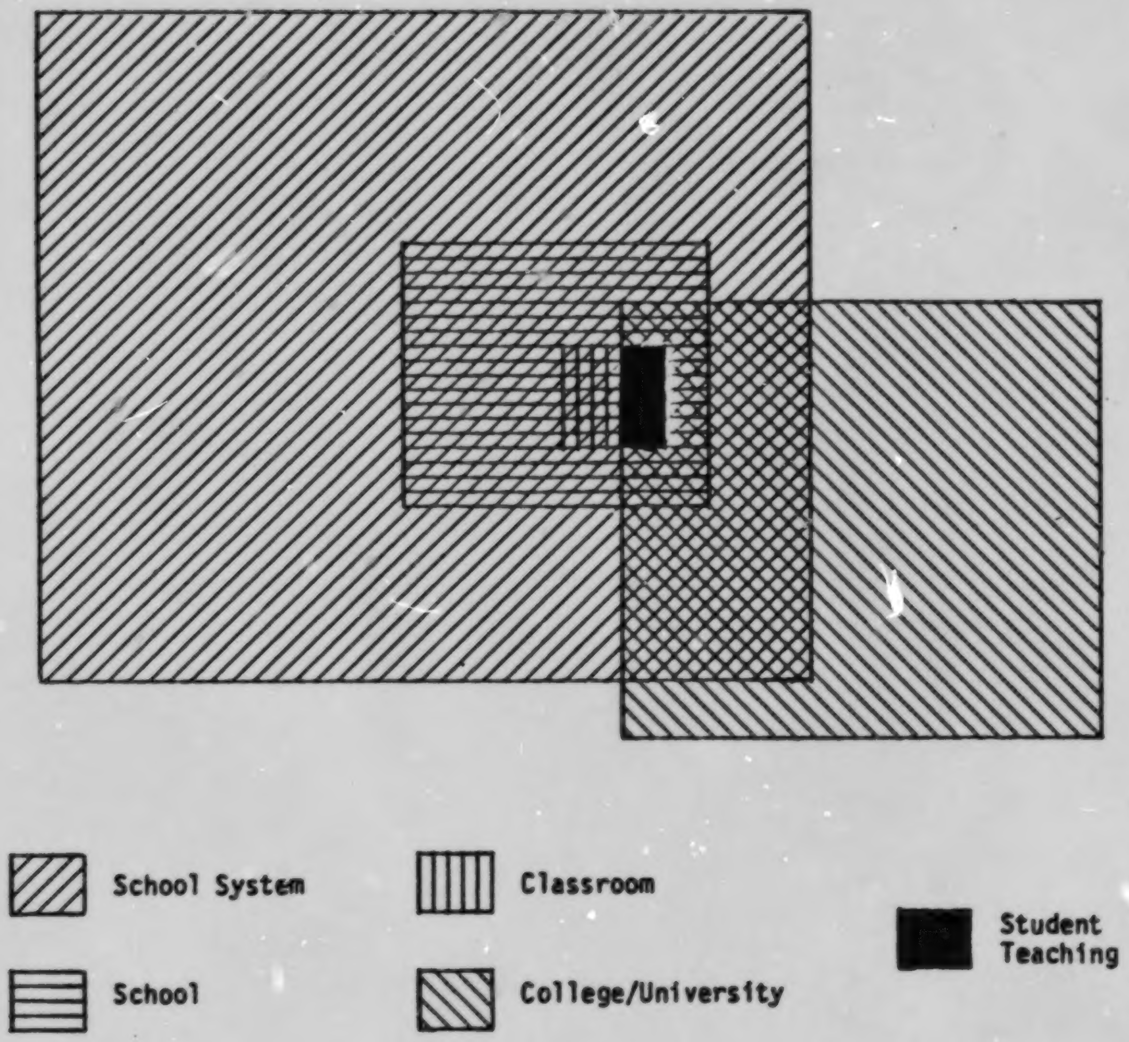
School System
Classroom
Student Teaching
School
College/University

Figure 1.1 Institutional contexts and student teaching

college/university coming to bear upon the student teaching experience. In addition the classroom context interacts with these other contextual variables. The school is not devoted entirely to providing a student teaching experience; norms and regularities are in effect before, during, and after a student teacher is placed, which the student teacher may or may not be aware of. The school as an educating institution is involved in schedules, sets of events, norms, and sanctions. For our purposes the diagram illustrates the hypothetical relationships which could, and often do, come to bear upon the student teaching component of teacher preparation. These relationships, varying in intensity and in purpose and procedures, can enhance or hinder the effectiveness and satisfaction of all participants.

The major context issues of student teaching which were studied in this descriptive research included the formal and informal properties of the university and the school system, the characteristics of the classrooms and schools in which student teaching was implemented, the rules and policies regulating the process, and the participants' beliefs and perceptions regarding these context variables.

Purposes of the Study

The overall purpose of this study was to describe in detail the student teaching experience in terms of the characteristics and behaviors of cooperating teachers, student teachers, and university supervisors of student teaching as well as the interactions of these persons and their institutional contexts.

The following specific research questions, although presented as discrete entities, are acknowledged as being interdependent. The questions are presented in terms of the conceptualization already discussed.

Individual Differences in Teacher Education

1. What personal, professional, and demographic characteristics do cooperating teachers, student teachers, and university supervisors bring to the student teaching experience?
2. How do these personal, professional, and demographic characteristics relate to one another?
3. How do these personal, professional, and demographic characteristics relate to the student teaching outcomes of satisfaction, expectations, performance ratings, and institutional evaluations?
4. What professional experiences, skills, knowledge, and behaviors do cooperating teachers, student teachers, and university supervisors bring to the student teaching experience?
5. What prior experiences do student teachers bring to the student teaching experience?
6. What expectations do cooperating teachers have of their role in the student teaching experience?
7. What expectations do student teachers have for their student teaching experience?

The Student Teaching Experience - Interactions

1. What are the natures of the interactions between and among cooperating teachers, student teachers, and university supervisors?

2. How and to what degree do these interactions relate to student teaching?
3. What is the nature of the supervisory process in student teaching?
4. What dominant patterns of teaching behavior can be determined for cooperating teachers and student teachers?
5. What is the relation between the cooperating teachers' teaching of

elementary and/or secondary students and the student teachers' teaching of elementary and/or secondary students?

6. What role is played by the university supervisor in the conduct of the student teaching experience?
7. What criteria are applied by cooperating teachers in their assessment of the student teachers and the student teaching experience?

The Contexts of Student Teaching

1. What are the formal and informal organizational properties of the public schools and the university that impact upon student teaching?
2. What are the demographic characteristics of the schools and universities?
3. What relation do the organizational properties have to student teaching?
4. What relation do the demographic characteristics of the schools and universities have to student teaching?

These research questions provided guidance to the research team during data collection and data analysis. For reporting purposes, however, they are less useful in that discrete attention to them, question by question, would mask the complexity of the student teaching enterprise and, in some instances, trivialize the findings of the study. Therefore, this report has been organized such that the research questions are responded to but the responses are presented in a different form.

Organization of the Report

This final report of the inquiry into student teaching has been introduced by the presentation of a rationale statement, an overview of the problem of student teaching, a conceptualization of student teaching, and a set of research questions which guided the effort. Chapter 2 reports the methods and procedures used in conducting the study with particular attention given to both quantitative and qualitative research modes. Chapter 3 describes the sites and participants used in the study. Chapter 4 presents findings related to personal and professional characteristics of student teachers, cooperating teachers, and university supervisors. Chapter 5 presents findings regarding the contexts of student teaching included in the study sample. Chapter 6 describes the supervision and evaluation processes used by participants in the study. Chapter 7 presents the findings related to personal/professional characteristics and outcomes of student teaching. Chapter 8 is a discussion of teaching as a component of the student teaching experience. Finally, Chapter 9 presents conclusions and recommendations which emerged from the RITE study of student teaching.

CHAPTER 2

METHODS AND PROCEDURES

To provide the broadest descriptive picture of clinical preservice teacher education both quantitative and qualitative data collection procedures were utilized. This section briefly describes the quantitative instruments, the qualitative data collection procedures and the schedule of data collection. Additionally, the analyses of both types of data are described. A description of how both types of data were integrated into a complete description of student teaching is also provided.

Background Questionnaire

To obtain a general description of the demographic and background characteristics of the participants, a questionnaire was developed. This questionnaire included questions about gender, ethnicity, parents' occupation and education, and birth order. The questionnaire also included questions about the participants' school experience (elementary through graduate training) in terms of the SES, ethnicity, size, and general impression of these experiences. Information was also obtained about current teaching activities, and information about other work experiences. This questionnaire was administered to all participants at the beginning of the semester.

Schedule of Data Collection

This section discusses the data collection procedures for both the general and intensive samples. A timeline of these procedures appears in Figure 2.1. During the first weeks of student teaching, instruments measuring the following constructs were administered to all members of the student teaching triads at State University and Metropolitan University: Educational Preference Scale, Paragraph Completion Text, Teacher Concerns Questionnaire,

	Student Teachers	Cooperating Teachers	University Supervisors
August-September	Educational Preference Scale*, Paragraph Completion*, Teacher Concerns Questionnaire*, Rigidity-Flexibility Index*, Quick Word Test*, Internal-External Locus of Control*, Empathy Construct Rating Scale*, Self-Perception Inventory*, Background Questionnaire*		
Week 1 or Week 2 or Week 3	Interview (1) for intensive sample; written answers to interview schedule for remaining sample	Interview (1) for intensive sample; written answers to interview schedule for remaining sample	Interview (1) intensive sample; written answers to interview schedule for remaining sample
	Journal (daily); Conference audio tape	Journal (Mon. & Thurs.) Conference audio tape; Observation (1) (narrative & student engagement measure)	Journal; Conference audio tape
Week 4	Journal (daily); Conference audio tape	Journal; Conference audio tape	Journal; Conference audio tape
Week 5	Observation (1) Journal (daily) Conference audio tape	Observation (2) Journal Conference audio tape	Journal Conference audio tape
Week 6	Journal (Mon & Thurs) Conference audio tape Observation (2) Interview (2)	Journal Conference audio tape Observation (3) Interview (2)	Journal Conference audio tape Interview (2)
Week 7 - 9 (October)	Educational Preference Scale*, Teacher Concerns Questionnaire*, Rigidity-Flexibility Index*, Internal-External Locus of Control*, Self-Perception Inventory*, Empathy Construct Rating Scale*		
Week 10	Journal Conference audio tape Observation (3)	Journal Conference audio tape	Journal Conference audio tape
Week 11-13	Journal Conference audio tape	Journal Conference audio tape	Journal Conference audio tape
Week 14-15 November	Journal Conference audio tape Observation (4) Interview (3)	Journal Conference audio tape Observation (4) Interview (3)	Journal Conference audio tape Interview (3)
	Educational Preference Scale*, Paragraph Completion*, Teacher Concerns Questionnaire*, Ridigity-Flexibility Index*, Internal-External Locus of Control*, Empathy Construct Rating Scale*, Teacher Work-Life Inventory*, Self-Perception Inventory*, Embedded Figures Test*, Expectations Scales*, Performance Rating Scales*, Satisfaction Measure*		
Week 16-17 (December)	Observation (5)	Observation (5)	

*designates data collection instruments for the total sample.

Figure 2.1 Data Collection Instruments and Schedule for General Sample and Intensive Sample

an adaptation of Rehfish's Rigidity Scale called Rigidity-Flexibility Index, Quick Word Test--Adult Form, James Internal-External Locus of Control--Short Form, Empathy Construct Rating Scale, and Self-Perception Inventory. Participants also completed the Background Questionnaire.

Qualitative data collection began when the student teachers were in the public schools but not yet teaching (see Chapter 3). The student teachers made daily entries into their journals from time of entry into their schools until they had completed their first full week of teaching duties. They then made entries twice weekly. The cooperating teachers began making journal entries twice weekly, on Monday and Thursday throughout the semester. The university supervisors made entries into journals recording all meetings, conferences, and observation. The schedule of entries for the university supervisors was not specified but continued throughout the semester. Any conferences held between any two members of the triad or among the three members of the triad were to be audio taped. Despite indications in Figure 2 that these data were collected on a regular basis, the conferences were taped only as they occurred. Also, the first observations of the cooperating teachers were made using narrative records and a measure of student academic engagement that was standard for all subsequent observations. During this period the first interviews were conducted individually with each member of the intensive sample triads.

The first week that the student teachers began extensive, full-class teaching (typically about the fifth week of school) the first observations of the students teachers were made (Figure 2.1). These and subsequent classroom observations included a focus on cooperating teacher-student teacher interactions in addition to the more usual foci for classroom observations. Those observations were the second for the cooperating teacher.

The second and third weeks the student teachers were teaching, the second observations were made of the student teachers (the third for the cooperating teachers). After the first week of teaching the student teachers changed from daily entries in the journal to twice weekly entries for the remainder of the experience. These were made on Monday and Thursday, the same schedule as for the cooperating teacher. The university supervisors continued to keep personal records as the need occurred. Audio recordings of conferences also continued.

At approximately the middle of the semester (weeks 7-9) several of the quantitative measures were administered again to both the general and intensive samples, including the Educational Preference Scale, Teacher Concerns Questionnaire, Rigidity-Flexibility Index, Internal-External Locus of Control Scale, Empathy Construct Rating Scale, and Self-Perception Inventory. Also, observations (third for student teachers and fourth for cooperating teachers) and interviews (second for both student teachers and cooperating teachers) continued. The university supervisors were also interviewed. Journals and audio recordings continued as previously described.

During the final weeks of student teaching, the observations (student teachers only) and interviews (third for both cooperating teachers and student teachers) were completed. The university supervisors participated in their third interview. Journals and audio recordings were continued. Finally, all members of the triad in both the general and intensive samples were again administered the Educational Preference Scale, the Paragraph Completion Test, the Teacher Concerns Questionnaire, the Rigidity-Flexibility Index, the James Internal-External Locus of Control Short Form, the Empathy Construct Rating Scale, the Self-Perception Inventory, the Teacher Work-Life Inventory, and the Embedded Figures Test. Those triad members not in the intensive sample provided written answers to the exit interview schedule given to the intensive sample. The outcome measures were also administered to all participants. These included performance rating scales, expectation measures, and a satisfaction scale for the student teachers.

Personality Instruments

Many personal qualities have been suggested as being related to teaching and teacher education. Data were collected on four personality constructs: Empathy, Flexibility, Locus of Control, and Self-Esteem. Each of these measures is described below.

Empathy Construct Rating Scale (Empathy). The Empathy construct focuses on the helper-client relationship and is defined as follows: "Empathy signifies a central focus and feeling *with* and *in* the client's world. It involves accurate perception of the client's work by the helper, communication of this understanding to the client, and the client's perception of the helper's understanding" (LaMonica, Note 2, p. 10). The original 84-item scale was developed to measure empathy among nursing and health care professional (LaMonica, Note 2). It is a self-report, Likert-response instrument which LaMonica validated through Campbell and Fiske's (1959) multitrait-multimethod approach. It was found to have good discriminant validity and high internal consistency (.96), though convergent validity was not apparent (not unusual when measuring one personality construct by different methods and types of response tasks). A shorter, 23-item version (internal consistency coefficient (alpha) = .87) was adapted by the RITE staff from the original for use in the study.

James Internal-External Locus of Control Short Form (Locus of Control). Rotter (1966) defines Locus of Control as the degree to which individuals believe that their lives are within their control. The James instrument consists of 11 self-report items in Likert-response format. Robinson and Shaver (1973) report split-half reliabilities from .84 to .96 and test-retest reliabilities from .71 to .86 in intervals from three months to one year. They also report evidence of concurrent validity, with the James instrument correlating with the Rotter IE Scale at .64, though there is evidence that locus of control instruments differ somewhat in the domains which they measure (Borich & Paver, 1978).

Different Situations Adaptation Scale (Flexibility). The Flexibility construct measured by this instrument relates to the capacity to change and to tolerate differences in interpersonal, social settings (Hughes, Griffin, & Defino, Note 3). Thus, it contrasts with more cognitive, intrapsychic constructs of flexibility such as Guilford's (1967) divergent thinking or Witkin's (Witkin, Goodenough, & Oltman, Note 4) cognitive style. Rehfish's (1958) Rigidity Scale was modified by the addition of 26 behaviorally-oriented items (for example, "Is uncomfortable in situations in which differences of opinion are aired."). These new items were placed in a Likert-response format. The expanded version, retitled the Different Situations Adaptation Scale (Hughes, et al., Note 3), was pilot-tested with a sample of 63 classroom teachers. Those items with the lowest interitem and item-scale correlations were removed, resulting in a 17-item instrument (alpha = .89). Convergent and discriminant validity was established using the Campbell and Fiske (1959) multitrait-multimethod design.

Self-Perception Inventory--Teacher Form (Self-Esteem). This instrument measures Self-Esteem as a function of the system of perceptions which a teacher formulates as part of an awareness of himself/herself as a teacher (Soares & Soares, 1980). These perceptions might be generally positive or negative, higher or lower, but are comprised of both positive and negative valences. Thirty-six pairs of dichotomous traits (adjectives) are in a semantic differential, Likert-response format. The 72 traits were selected from lists of personality traits related to teaching that were compiled by six groups: (1) elementary and secondary public school students; (2) student teachers; (3) university supervisors of student teaching; (4) classroom teachers; (5) expert educators; and, (6) personality researchers. The traits were selected on the basis of agreement among the groups, teaching effectiveness research, and subsequent pilot-testing (Soares & Soares, 1980). Test-retest reliability at an interval of four weeks is .89. The authors cite evidence of concurrent validity: SPI with ratings of internship competence ($r = .37$, p .01), and predictive validity, with ratings of on-the-job success ($r = .38$, p .01). Alpha computed from the current data is .91 (Hughes & Hukill, Note 5).

Cognitive Instruments

In addition to indicators of personality this study sought to describe the cognitive characteristics of the participants. Data were collected, using three cognitive measures: Paragraph Completion Test (Conceptual Level), Embedded Figures Test (Cognitive Style) and the Quick Word Test (Vocabulary). Each of these instruments is described below.

Paragraph Completion Test (Conceptual Level). The PCT is a measure of adult development which is based on the Conceptual Systems Theory of Harvey, Hunt, and Schroder (1961). The model was developed in the contexts of staff development, teaching, and counseling and it described a regular series of stages (conceptual levels) through which individuals move. It is assumed that the way in which a person organizes his or her world, not only the physical objects in it, but particularly the interpersonal relationships, determines and reflects the conceptual level of that person. The PCT is designed to tap the way in which a person organizes his or her interpersonal world and, thus, to show the conceptual level at which the person functions (Schroder, Drives, & Streufert, 1967). The subject is asked to write two or three sentences in response to each of five sentence items. Each item presents either control or constraint ("What I think about rules..."), discrepancy ("When I am criticized..."), or uncertainty ("When I am not sure...") to which most subjects respond with an attempt at resolution. Schroder, et al., (1967) report that such resolution responses result in high inter-rater reliability and construct validity. Item-test correlations range from .57 to .75. Split-half reliability is .70. Intra-rater reliability coefficients of the PCT scoring from the present study range from .90 to .93.

Group Embedded Figures Test (Cognitive Style). This instrument is one of several developed by Witkin and his associates as a perceptual measure of field dependence-independence, more generally referred to as cognitive style or differentiation (Witkin, Oltman, Raskin, & Karp, 1971). The GEFT is an adaptation of the original EFT which permits more flexible administration. In both versions the subject is presented with a series of complex figures each of which incorporates a simple figure. The subject's task is to identify the incorporated simple figure. The original EFT, requiring individual administration, has been extensively validated (Witkin, et al., 1971). The GEFT which does not require individual administration is closely modeled on the original EFT, with 17 of its 18 complex figures taken from the EFT. (Seven other Gottschaldt figures comprise a warm-up section which is not scored.) The 18 items are divided into comparable sections of nine each. Witkin, et al. report a correlation of .82 between the two sections. Evidence of concurrent validity is provided by correlations of -.82 (males) and -.63

(females) of GEFT with the parent EFT (the correlations should be negative because the EFT is scored in reverse fashion).

Quick Word Test (Vocabulary). This instrument assesses vocabulary level for the purpose of quickly estimating general intelligence (Borgatta & Corsini, 1960). It is based on the assumption held by psychometricians that the understanding of the meanings of words is the best single indicator of mental ability. The QWT is a 100-item multiple choice vocabulary measure. It has been found to have consistently high reliability (.90's for split-halves and alternate forms), and it correlates (.80's) with the Wechsler Adult Intelligence Scale and with other measures of general intelligence (Grotelveschen & Knox, 1967).

Teacher Instruments

In addition to the broad descriptions of the participants, a description of teaching related behaviors and attitudes was also sought. To describe the teachers the participants were asked to complete the Educational Preference Scale (Educational Preference), the Teacher Concerns Checklist (Self, Task, and Impact concerns), and the Teacher Work-Life Inventory (Institutional Constraints, Rewards, School Norms, Dissatisfaction, Executive Responsibilities). Each of these instruments is described below.

Educational Preference Scale (Educational Preferences). This instrument measures an individual's position between the philosophical poles of traditionalism and process-centered progressivism. A short story is presented in which a young boy is shown two approaches to education--one traditional, the other process-centered. Both approaches are presented in a positive light. The story is accompanied by opposing pairs of statements about the purposes and roles of students, teachers and learning. Respondents indicate their positions between the bipolar statements via a five-point

Likert-response scale. Lacefield and Mahan (1980) report internal consistency of .85. High scores on the EPS (process-centered) are negatively correlated (-.34) with high scores on Rokeach's Dogmatism Scale and are positively correlated (.45) with the progressive education end of the Education Scale. Furthermore, the EPS accurately discriminated between four groups of preservice and inservice teachers which were previously determined to range from traditional to progressive (Lacefield and Cole, Note 6).

Teacher Concerns Checklist (Self, Task, Impact). This instrument is based on Fuller's (1969) Concerns Theory which states that initially in their careers teachers are concerned about self-protection and consolidation (Self). Later their concerns shift more to the demands of their jobs (Task). Finally, as they mature professionally, their concerns focus on the effects of their teaching on students (Impact). The TCC, then, consists of 56 items which are grouped into three factors: (1) Teacher Self-Concerns; (2) Teacher Task Concerns; and (3) Teacher Impact on Student Learning Concerns. The alpha coefficients are, respectively, .86, .79, .91. Test/retest correlations over a 1-week interval are .87, .80, and .77 for the three factors. Borich and Fuller (Note 7) report some evidence for the developmental nature of the concerns factors. In one study preservice teachers showed significantly more Self concerns ($p < .001$) and significantly fewer Task concerns ($p < .001$) than inservice teachers. Group difference did not occur on the Impact factor perhaps because both groups responded at the high end of the scale. Though Borich and Fuller (Note 7) report moderate independence of the factors in an early form of the TCC (.23 between Self and Task; .45 between Self and Impact; .55 between Task and Impact), the intercorrelations of the factors in the present study are considerably higher (.53 between Self and Task; .72 between Self and Impact; .54 between Task and Impact). The particularly high correlation between Self and Impact casts further doubt on the developmental sequence proposed in Concerns Theory.

Teacher Work-Life Inventory (Initial Constraints, Rewards, School Norms, Dissatisfaction, Executive Responsibilities). This instrument was developed to explore the character of the work-life of teachers and, thus, complement measures of organizational climate (Blumberg & Kleinke, Note 8). The authors point out that there have not been valid and systematic means to inquire into the school as a work environment. Toward that end they began the development of the TW-LI which directly and systematically inquires of teachers about the character of their work place. The authors explicitly state that the TW-LI is a research instrument that may be further refined as it is used in wider contexts. Items were drawn from interviews with teachers and deduced from the concept of the school as a work place. Forty-seven items were chosen for the original TW-LI. Items consisted of a word or phrase: "Tension," "Opportunities for advancement." Subjects were asked to rate each item on a four-point scale as to how sharply each stood out as a descriptor of their work-life from "very sharply" to "not at all." Three hundred eight teachers responded to the original form. A principal components factor analysis was performed, resulting in 13 factors. The items loading on each factor were examined, and those with high loadings on more than one factor were eliminated, reducing the total number of items to 36. A second factor analysis, using the remaining items, resulted in 11 factors. In the present study the RITE project staff performed a factor analysis with the constraint that all factors would have eignevalues of at least 1.00. This resulted in a more parsimonious and intuitively appealing structure of five factors. These have been tentatively labeled as follows (Alpha coefficients are in parentheses): Institutional Constraints (.83), Rewards (.75), School Norms (.71), Dissatisfaction (.76), and Executive Responsibilities (.63). Intercorrelations of the five factors are as follows: Institutional Constraints with Rewards, r = -.10, Institutional Constraints with School Norms, r = .44 (p .01), Institutional Constraints with Dissatisfaction, r = .72 (p .01, Institutional Constraints with Executive Responsibilities, r = .25 (p .01), Rewards with School Norms, r = .10, Rewards with Dissatisfaction, r = .00, Rewards with Executive Responsibilities, r = .48 (p .01), School Norms with Dissatisfaction, r = .60 (p .01), School Norms with Executive Responsibilities, r = .42 (p .01) Dissatisfaction with Executive Responsibilities, r = .33 (p .01).

Outcome Instruments

One of the biggest difficulties in assessing the impact of student teaching has been identifying suitable outcome measures. Unlike the achievement measure for assessing the effects of teaching on student learning there are no generally agreed-upon outcome measures for student teaching. On the basis of a review of the literature (Griffin, et al., Note 1) and the recommendation of experts at a national conference on student teaching (Griffin & Edwards, Note 9), three types of measures were selected: expectation scales (i.e., measures indicating the degree to which expectations about student teaching were met), performance rating scales (measures of the degree to which each participant (student teacher, cooperating teacher, and university supervisor) carried out his or her responsibilities, and student teacher satisfaction. These instruments are described below (See Tables 2.1-2.3) In addition to these instruments which were developed by the RITE staff, the final evaluation forms used by each university were also included for additional outcome data. Their analysis will be detailed in Chapter 8.

Table 2.1

Expectations and Satisfaction of Student Teaching

Instruments	Scale Characteristics				
	Means	Standard Deviation	Possible Range of Scores	Mid Point	N
Expectations					
Student Teacher					
Orientation	15.45	3.84	6-30	18	84
Competence	10.43	3.72	5-25	15	84
Time	31.87	6.42	12-60	36	84
Cooperating Teacher	50.89	11.61	17-85	51	85
University Supervisor	3.15	.78	1-5	3	17
Satisfaction					
Student Teacher	90.72	12.01	22-110		88

Table 2.2

Means, Standard Deviations, and Ranges of Performance Rating Scales

Scales	Means	Standard Deviations	Range of Scores	N[a]
Student Teacher by				
Self	4.36	.40	3.10-5.00	86
Cooperating Teacher	3.95	.71	1.92-4.76	85
University Supervisor	4.11	.62	2.41-4.73	35
Cooperating Teacher by				
Self	4.60	.35	3.86-5.00	86
Student Teacher	4.24	.82	1.64-5.00	83
University Supervisor	4.18	.83	1.57-5.00	31
University Supervisor by				
Self	4.52	.28	3.93-5.00	17
Student Teacher	3.83	.85	1.36-5.00	88
Cooperating Teacher	4.13	.68	2.21-5.00	86

[a] There were 198 participants in the study, including four US's from MU and 13 US's from SU. Because US's at both sites were assigned to more than one triad, they rated only a subset of their triads, usually from the intensive sample. Discrepancies in N, then, reflect variation in N of US's and/or missing data.

Table 2.3

Intercorrelation Triangles of Performance Rating Scales by Triad Role

ST Ratings

	ST by Self	ST by CT	ST by US
ST by Self	1.00		
ST by CT	.45**	1.00	
ST by US	.35**	.31*	1.00

CT Ratings

	CT by Self	CT by ST	CT by US
CT by Self	1.00		
CT by ST	.07	1.00	
CT by US	.26	.45*	1.00

US Ratings

	US by Self	US by ST	US by CT
US by Self	1.00		
US by ST	.24	1.00	
US by CT	.30	.64**	1.00

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* $p < .05$

** $p < .01$

Expectation Scales. The expectation items were drawn from a content analysis of initial interviews with student teachers, cooperating teachers, and university supervisors that participated in the present study. Items were placed in a five-point Likert-response format indicating the degree to which the expectations were met, from "Less than I expected" to "More than I expected." The student teacher instrument was comprised of 29 items grouped into four areas: overall orientation, teaching competence, time use, and prior course work. The cooperating teacher instrument was comprised of 17 items grouped into two areas: time use and expectations of the student teacher's performance. The university supervisor's instrument was comprised of 11 items grouped into two areas: time use and general supervision.

Performance Rating Scales. No satisfactory scales were found specifically relating to the student teaching experience, nor to the triad roles. Therefore, the RITE staff created them de novo. Items for these scales were drawn from a number of sources. The items were behaviorally focused and were generated from research findings on the student teaching experience (Griffin, Hughes, Barnes, Carter, Defino, & Edwards, Note 10), craft knowledge including supervision experience of the RITE staff members and interviews with university supervisors and cooperating teachers. The student teacher performance rating scale also includes items from areas indicated on the university evaluation forms for student teachers. The items were rated on five-point Likert-response scales from "Strongly agree" to "Strongly disagree." The performance of each member of the triad was rated by that member as well as by the other two via approximately parallel forms. Internal consistency coefficients for all forms except the University Supervisor Self-Rating Scale ranged from alpha = .82 to alpha = .94.

The internal consistency coefficient of the University Supervisor Self-Rating Scale was alpha = .64. Each triad member was asked to rate the other two members in order to examine the consistency of the ratings from role to role, and, by inference, the commonality of their perspectives on the student teaching experience. Because each university supervisor was assigned to more than one triad, the US's rated only those of their triads that were in the intensive sample, or if none were, then two randomly selected triads. This was done so as not to overburden the US's, yet to maintain a modicum of useful data. This, of course, sharply reduces the $\underline{n}$ of any intercorrelation involving ratings by US's, and, thus, makes interpretation somewhat more problematic.

Student Teaching Satisfaction Scale. This instrument, as the Performance Rating Scales, was developed de novo by the RITE staff. Items were based on a review of the literature dealing with experiences which are associated with student teacher and teacher satisfaction (Griffin, et al., Note 1), the craft knowledge of the RITE staff and select student teachers, cooperating teachers, principals, and teacher educators. The items were low inference, behaviorally-based statements about the student teaching experience which the student teachers rated in a five-point Likert-response format from "Strongly Agree" to "Strongly Disagree." Its internal consistency coefficient (alpha) = .88.

Qualitative Data Collection Procedures

The intensive sample was also asked to provide additional qualitative information about the student teaching experience through interviews, journals, conference records, classroom observations, and program descriptions. Each of these data collection procedures is described below.

Interviews. Each of the participants in the intensive sample was interviewed three times during the semester: at the beginning, middle, and end of the semester. An interview protocol was developed for each role group (student teachers, cooperating teachers and university supervisors). When possible and appropriate, all three members of the triad were asked similar questions as a way of examining the similarities and/or dissimilarities in perception of the experience.

The first interview explored the participants' views of teaching and their orientation toward student teaching. The cooperating teachers and university supervisors were asked numerous questions about their views on their roles and functions in student teaching, their attitudes toward the teacher education institution, their work schedules, and a description of their methods for initiating student teachers into the profession. The student teachers were asked questions about their preparation and their expectations for student teaching.

In the mid-semester interview the participants were asked questions about activities and roles in student teaching. The cooperating teacher and university supervisor were asked about their training procedures, observations of the student teacher, feedback, and evaluation procedures. Additionally, they were asked about their duties and responsibilities, effects of the school context, and their relationships with other school and university personnel. The student teachers were asked about their practice teaching experience, involvement in school activities and about their relationships with school and university personnel.

The interview at the end of the semester covered many of the same topics as the mid-semester interview in regard to responsibilities and relationships. Additionally, these interviews included questions about evaluation procedures.

For the student teachers, these final interviews included questions about their readiness for the classroom and plans for the future.

The interviews took from 30 minutes to 1½ hours to conduct, with most lasting about one hour. The interviews were conducted by RITE staff members and recorded on audiotape. They were later transcribed, resulting in over 3,000 pages of interview data.

Journals. Each of the participants in the intensive sample was also asked to keep a journal describing reactions during the semester. It was thought that the journals would tap important information about the student teaching experience which might not come out in the contexts of structured interviews and conferences. This method of data collection was included to capture the more personal, daily experiences of the participants. Each participant was asked to record events in his/her journal at least twice during the week. They were given some example journal pages and a set of guideline questions as a way of directing their entries. For student teachers these guideline questions focused on what was happening in the classroom and their interactions with the cooperating teachers and university supervisor. For the cooperating teacher and university supervisor the guideline questions directed them to provide information about their supervision and their personal reactions to working with a student teacher in the classroom.

The journals were completed somewhat sporadically. While almost all participants made some journal entries, both the quality and quantity varied greatly. The average number of entries for the student teachers was approximately 39, for cooperating teachers was approximately 30, and for university supervisors was approximately 30.

Conference records. At the beginning of the semester all cooperating teachers were provided with cassette tape recorders for the purpose of recording their conferences with the student teachers. It was suggested that the cooperating teachers record both formal and informal conferences. That is, both evaluation and planning conferences as well as occasional discussions about every day affairs of the classroom. As with the journals there was a great deal of variation in conference recordings. For one triad we received no recordings and for another we received 25 (the most recordings). The mean number of recordings was 8. The conferences could also vary in length. Some conferences were only ten minutes long while others lasted an hour. All of the conferences were transcribed, resulting in over 3,000 pages of material.

Classroom observations (narratives). The teaching of both the cooperating and student teacher was observed during the semester. The cooperating teacher was observed at least three times during the semester and the student teacher at least four times. The observations were between two and three weeks apart over the course of the semester. The classroom observations were designed to obtain a record of the teaching styles of the cooperating teacher and the student teacher as well as information about their style of working together in the classroom.

Prior to conducting the observations the RITE staff participated in 30 hours of observation training. This training included learning how to make detailed narrative records as well as completing periodic student engagement ratings. Much of the training involved watching videotapes of classrooms and recording this information, followed by a comparison of each members' coding. This training was continued until all observers obtained satisfactory inter-rater reliability on the student engagement ratings and produced similar narratives. The inter-rater reliability was based on the percent of exact agreement on the classroom formats, the subject matter, and the number of students in various on and off-task situations. The percent agreement across all categories ranged from 71% to 100%. The mean agreement was 90%.

The observer was instructed to write a description of classroom events focusing on instructional management, inappropriate student behavior, management of behavior, classroom climate, treatment of individual differences, teaching methods, questioning techniques, administrative activities, and use of time. The observer was also asked to record information regarding the interactions of the student teacher and cooperating teacher during the observation period. That is, were there discussions, evaluations, and/or demonstrations that involved the training of the student teacher?

Program description. In addition to these sources of information, the RITE staff collected all available materials regarding the teacher preparation programs at the two institutions. These documents included descriptions of the curriculum and coursework for teacher education as well as materials related specifically to student teaching. The documents regarding student teaching included guidelines for all of the participants (university supervisor, cooperating teacher, and student teacher) regarding supervision, responsibilities, and evaluation. These materials were collected and analyzed.

Quantitative Data Analyses

A series of data analyses was conducted to assess the nature of the quantitative data. Initially, a set of reliability analyses was conducted to assess the internal consistency of the various scores derived from the instruments. Next, correlations among all of the scores for all individuals were computed in order to examine the construct validity of each of the instruments. Following this, a series of analyses of variance was conducted to assess differences between the two sites (State University and Metropolitan University), the two samples (general and intensive), and the type of participant (university supervisor, cooperating teacher, and student teacher). These differences were examined on the following constructs: Teacher Concerns, Flexibility, Educational Preference, Locus of Control, Empathy, Self-esteem, Vocabulary, Teacher Work-Life, Cognitive Style, and Conceptual Level. For those instruments that were only given to certain participants or that were designed for each specific role group (e.g., expectations), then two-way ANOVAs with site and sample were conducted. These analyses were conducted with the following instruments: Expectations, Performance Ratings, and Satisfaction.

Another significant question in this study was the degree of change during the semester. To assess this change several instruments were given at the beginning, middle, and end of the semester to all three types of participants. The constructs measured were: Teacher Concerns, Flexibility, Locus of Control, Educational Preference, Empathy, Self-esteem, and Conceptual Level. For each construct and each participant type (student teacher, cooperating teacher, and university supervisor) a repeated measures analysis of variance was conducted to detect changes over the course of the semester.

Finally, predictive analyses were conducted to assess the relationship of entry characteristics and change to outcomes. For these analyses the outcome measures were expectations, performance ratings (by self and the other participants) and satisfaction (student teachers only). The predictors (entry characteristics) were the score of the first administration of the instruments which measured the following constructs: Vocabulary, Empathy, Locus of Control, Flexibility, Educational Preference, Teacher Concerns, Self-Esteem, and Conceptual Level. Simple Pearson correlation coefficients were computed between these measures and the outcomes for each participant group. Also, change scores were created and used as predictors. Change scores were calculated by regressing the score of the first administration on the score of the last administration--that is, using the first score to predict the last score and using the residual differences as an indication of change. These residual gain (change) scores were then correlated with the outcomes. These correlations were computed for the following constructs: Teacher Concerns, Flexibility, Locus of Control, Empathy, Self-Esteem, Educational Preference, and Conceptual Level.

In summary, several types of quantitative analyses were conducted. These were designed to answer the following questions: Were the scores on the instruments internally consistent? Was there construct validity for the instruments? Were there differences due to the site, sample, and/or type of participant? And were entry characteristics and/or change related to outcomes of student teaching?

Qualitative Data Analysis

Unlike the quantitative analysis, the qualitative data analysis procedures are not easily summarized. They went through a long series of developmental steps which have been described elsewhere (Defino, Barnes, & O'Neal, Note 11). This section describes the coding procedures as they were finally implemented. Throughout the qualitative data analysis care was taken to remain faithful to the original language and tone of the participants' responses. The coding systems for the interviews, journals, observations, and conferences are each described in the following pages. Also, the general procedures for analyzing the teacher education documents are described.

Interviews. As described earlier the interviews were designed to obtain direct information related to the original research questions. These research questions were used as a basis for organizing the interviews. That is, one of our research questions concerned the role and influence of the university supervisor. All questions related to the university in each participant's interview on all three occasions (beginning, mid-, and end-of-semester) were examined to answer this research question. A similar process was used for each additional research question. Sometimes questions in the interview were used in relation to more than one research question; however, this did not affect the general content coding process. The basic steps in this process were as follows.

Initially, the coder read through all of the interview questions and identified those questions that appeared to be related to a particular research question. Once the questions were identified, the coder would organize all of the answers to this question so that they could be easily read and organized. The coder would read each of the answers to get a sense of the range of content in the answers. Next, the coder would begin to try to fit an organizational scheme to the answers. In certain cases this might result in intricate, hierarchical coding schemes. To this end the coder attempted to develop a coding scheme that was exhaustive, yet parsimonious. There are no firm guidelines for this procedure, but an effort was made to retain as much as possible a low inference coding scheme that "chunked" similar answers with one another until some framework emerged. After the initial coding, an independent coder also coded the same material to determine the degree to which the two coders organized the material in similar ways. Only those coding schemes in which there was substantial agreement between the two independent coders were used. This coding process was repeated for each research question.

Journal analysis. The open-endedness of the journals required a different approach to data analysis than the interviews. After reading numerous journals and considering various coding schemes the RITE staff concluded that the information in the journals could best be organized into five categories - that is, five types of information appeared to be provided by the journal authors. These were Background Information, statements about characteristics of the participant, experiences and preparation that occurred prior to the current semester; Teaching, information about the teaching behavior of the student teacher, cooperating teacher, or the university supervisor; Supervision and Teacher Education, statements about the experiences germane to the monitoring and evaluation of the student teacher's performance and its improvement; Goals, Expectations, and Ideals, information about the personal, behavioral, and academic aims, aspirations, and ambitions of the ST, CT and US; and Context, statements about the settings in which student teaching is taking place including the personal, public school, and university contexts.

To code the journals a coder read through the entire journal and then began transcribing each piece of information verbatim into one or more of the five categories. The result of this process was an individual journal organized into five categories. Five persons were trained to code the journals. To assess the interrater reliability of these individuals their coding of several journal pages was compared. Percent of agreement was computed. The range of agreement was from 57% to 100% with a mean agreement of 75%.

Classroom observation analysis. The purpose of this analysis was to obtain a summary of classroom behavior of the participants. The coding system was designed to provide a descriptive picture of the types of teaching behaviors and student behaviors exhibited in the classroom. The coding system derived directly from the observational system in that the coder provided examples of each type of behavior and kept a tally of each occurrence. The major classifications of behaviors were: Instructional Management, Managing Pupil Behavior, Appropriate Student Behavior, Inappropriate Student Behavior, Teacher Reaction to Inappropriate Behavior, Materials, Administrative Activity, and Student Teacher-Cooperating Teacher Interactions. Through the examples and tallies a detailed summary of each observation was made. Also, a summary was made of the amount of time spent in different activities.

Several coders were trained to do the coding. Two forms of interrater reliability were computed. The naive coders' ratings were compared with an expert observer's codings and the mean percent agreement was 70%. Also, the naive coders' ratings themselves were compared with one another and the mean percent agreement was 94%. Both of these reliability estimates made us confident of the coders' ability to derive consistent information from the observation data.

Conference analysis. The recorded conferences were also analyzed to obtain information about both the process and content of the interactions. The Process code was designed to indicate who was doing the talking, who was listening, and what was the nature of the message. That is, in the case of a three-way conference was the cooperating teacher talking to the university supervisor or student teacher and was the message a question, a command, an instruction, etc? Several different types of Process variables were developed that generally characterized all of the types of conversation. These were: "Gives Specific Directions," "Asks About Interests or Concerns," "Provides Evaluative Feedback," "Reviews or Comments on Classroom Events," "Provides Options," "Describes Own Interests," "Acknowledges Statement," and "Offers

Suggestions." These codes provided a way to characterize the type of interaction that took place between the conference participants.

In addition to Process, a Content code developed by Weller (1971) was adapted for coding the information discussed in the conference. There were two broad types of information: "Student Teaching" and "Classroom Teaching." That is, the participants could either discuss matters pertaining to the student teacher's activities or to classroom teaching matters. Discussion of "Student Teaching" was indicated by not coding any further in regards to topic, but "Classroom Teaching" was coded in regards to Generality, Focus, and Domain. Generality refers to whether the discussion was general or specific. Focus indicated whether the discussion was about objectives or content, methods or materials, or about instructional interactions. Domain referred to cognitive, affective, or social/disciplinary matters. Thus, each statement about teaching was coded in terms of its Generality, Focus, and Domain.

Several coders were trained to conduct this coding. Interrater reliability was computed for each coding category as follows: Process, 64%; and Content, 71%. Thus, interrater reliability was sufficient to conduct further coding.

All conferences were not coded due to the sheer number of pages of materials. All three-way conferences were coded and the first and last conference of each triad was coded. At the conclusion of the coding the codes were transferred into percentages such that one could indicate the amount of time spent on each type of content and the dominant modes of interaction (process) among the participants.

Teacher education documents. As indicated previously all documents at the two sites pertaining to teacher education, particularly student teaching, were collected. These documents were read and their contents compared. This analysis was undertaken to answer the following questions: What is the coursework for teacher education? and, What types of guidelines are available for student teachers, cooperating teachers and university supervisors? The documents of the two sites were compared and contrasted in an effort to determine the similarities and differences in the program descriptions (Defino, et al., Note 11).

Integrating Quantitative and Qualitative Data

As indicated from the outset of this research project, the RITE staff sought to construct a broad and rich description of the student teaching experience. To do this it was decided to include both quantitative and qualitative measures. In the previous pages the independent analyses of each data source were described; in this section how these shreds of evidence were pieced together into a composite mosaic of descriptive research will be detailed.

While there have been few guidelines for the analysis of qualitative data, there have been even fewer suggestions as to how to proceed in terms of integrating them with quantitative data. The RITE staff proceeded in two directions in an effort to integrate this information. The first was simply to return to our research questions and gather all data that pertain to that question, whether qualitative and quantitative, and proceed to answer the question. For example, one research question involved understanding how the university supervisor goes about the business of supervising student teachers. To answer this question, information was gathered from journals, interviews, conferences, written documents, observations, and from quantitative instruments such as those measuring Flexibility, Empathy, Educational Preference, etc. Numerous types of information, both in particular and general, were woven together in response to this question. Thus, on the one hand it was possible to describe particular instances of university supervision activities, and, on the other hand, describe general patterns of changes or lack of change in regard to flexibility or empathy. Of course, each type of conclusion has limits in terms of both reliability and validity, but all of the information obtained tends to clarify the nature of the supervisory process by university supervisors.

The other method for integrating multiple sources of information was through the use of the case study. Edwards (Note 12) examined three particular cases in detail to explore the similarities and differences among cases which fit the general pattern (that is, showed no change in conceptual level) and those that deviated from the general pattern (that is, showed either positive or negative change). By moving from the general to specific and exploring the wide range of both qualitative and quantitative information about these triads it may be possible to identify the factors that contributed to the deviation from the general pattern.

The other possibility for case studies is to shift from the specific to the general. For example, suppose that a particular student teacher shows evidence of strong, directive supervision by the cooperating teacher and another does not. How are their general patterns of change in terms of self-esteem and conceptual level affected? Are they similar or different from the overall pattern of change detected in the full sample?

Both types of case studies are important to the overall enterprise of descriptive research because they help to draw specifics from the general and generate general features from particulars. Either case, of course, raises new and interesting questions about the conduct of student teaching.

It should be said that many among the research community will find these suggestions for merging qualitative and quantitative data bases distressing because they appear to violate the purity of either research method. The RITE staff would argue that these methods take advantage of the strengths of each approach and minimize the limitations. Thus, while clear nomothetic statements may be made from the quantitative data, there is no accounting for the so-called "outlier" cases. In the present case the transition to the qualitative data provided some insight about these "different" cases. Likewise, the qualitative data provided useful details about a process, the implications of which were mirrored in the quantitative data, thus, overcoming the so-called limits of generalizability for the qualitative data. In general, the RITE staff found these methods useful and illuminating in their analysis and interpretation of the data regarding student teaching.

CHAPTER 3

PARTICIPANT AND SITE DESCRIPTION

To conduct a descriptive study of student teaching a wide range of participants and two sites were selected. This chapter includes a description of the participants and sites involved in the study. More specifically, characteristics of the participants, the universities, and the elementary and secondary schools will be presented.

Participant Description

Student teachers and their respective cooperating teachers and university supervisors from two universities participated in the study. (Pseudonyms have been used to identify the universities, school districts, and cities involved in the study.) From State University, where student teachers were placed in two school district schools in the Lakeview area, there were 44 student teachers, 43 cooperating teachers, and 13 university supervisors. From Metropolitan University and Urban Unified school district, 49 student teachers, 45 cooperating teachers, and 4 university supervisors participated. The total sample included 93 student teachers, 88 cooperating teachers, and 17 university supervisors. All the university supervisors were charged with the supervision of more than one student teacher.

This sample of participants was composed of two sub-samples: general and intensive. The intensive sample consisted of a select group of 20 clinical triads. These triads were selected prior to the beginning of the school year. The RITE staff contacted both universities and school districts and asked their representatives to nominate cooperating teachers whom they would judge to be "effective." University personnel, university supervisors and principals made recommendations of effective cooperating teachers to the RITE staff. The person doing the nominating was also asked to specify the criteria on which they judged "effectiveness." Those cooperating teachers and the student teachers and university supervisors to whom they were assigned composed the "intensive" sample. The intensive sample was composed of 20 cooperating teachers and 20 student teachers, 10 from each site, and nine university supervisors. The remaining student teachers, cooperating teachers, and university supervisors were called the "general" sample. The final composition of the entire sample appears in Table 3.1. As was described in Chapter 2 the data collection was more extensive with the intensive sample than with the general sample.

The demographic and background information for each group of participants (student teachers, cooperating teachers, and university supervisors) is provided in the following section. A contingency table analysis was conducted with all demographic data by site (i.e., Urban vs. Lakeview) and sample (i.e., general vs. intensive). Because no significant differences were noted, the following description pertains to all participants at both sites in both the general and intensive samples. A summary of the demographic data for the entire sample is found in Table 3.2.

Student teachers. In the sample of student teachers there were 6 males and 87 females. The mean age was 22.68 years with a range from 20 to 47 years. The group of student teachers was predominantly Anglo (76.3%), but included Asians (8.6%), Blacks (6.5%) and Hispanics (7.5%). The majority of the student teachers planned to work at the elementary level (84.9%). The majority (83.9%) also reported having had no teaching experience, but a few (14.0%) indicated that they had had between one and four years of teaching experience.

Table 3.1

Design of Student Teaching Study

Participant Type	State University		Metropolitan University	
	Intensive	General	Intensive	General
Student Teachers	10	34	10	39
Cooperating Teachers	10	33	10	35
University Supervisors	5	8	4	0

Table 3.2

Descriptive Statistics for Total Sample from Background Questionnaire

	Metropolitan University						State University					
	General			Intensive			General			Intensive		
	CT	ST	US	CT	ST	US	CT	ST	US	CT	ST	US
Sex (number)												
Male	1*	2	**	0	2	1	1	1	1	1	1	2
Female	34	37		10	8	3	32	32	7	9	9	3
Age (mean)	40.4	22.3		42.7	25.6	52.5	38.1	23	31.9	33.5	21.5	38.5
Ethnicity (number)												
Anglo	24	24		10	7	3	28	28	5	9	10	4
Asian	6	6		0	1	0	0	1	0	0	0	0
Black	4	5		0	1	1	3	0	0	0	0	0
Hispanic	1	3		0	0	0	2	3	4	1	0	1
Other	0	0		0	0	0	0	0	0	0	0	0
Level of Teaching (number)												
Preschool	0	1		0	0	0	0	4	0	0	0	0
Elementary	34	33		8	8	0	33	28	3	10	9	2
Junior High	1	3		1	1	0	0	0	0	0	0	1

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*Numbers will not always add up to total number of participants involved in the study due to incomplete or missing questionnaires.

**Because the university supervisors were the same for both the intensive and general samples, their data are recorded in the intensive column only.

Table 3.2 (cont.)

	Metropolitan University						State University					
	General			Intensive			General			Intensive		
	CT	ST	US	CT	ST	US	CT	ST	US	CT	ST	US
Senior High	0	2		1	1	0	0	0	0	0	0	2
College	0	0		0	0	4	0	0	4	0	0	0
Other	0	0		0	0	0	0	1	1	0	1	0
Number of Years Experience (number)	16.0	2.8		17.1	4.0	28.5	13.2	1.7	12.4	9.4	1.0	10.8
Father's Occupation (number)												
Educator	3	1		0	2	0	3	4	2	0	2	2
Professional	8	15		3	2	0	5	9	1	3	1	1
White collar/management	7	7		4	3	2	8	10	2	4	3	1
Skilled Labor	10	8		2	3	1	8	8	3	2	3	0
Unskilled Labor	2	1		0	0	0	1	0	0	1	1	0
Mother's Occupation (number)												
Educator	8	2		1	2	0	6	4	1	0	2	2
Professional	3	1		1	0	0	0	0	1	1	1	0
White collar/management	4	6		3	0	1	2	5	2	2	1	0
Skilled Labor	4	8		0	0	0	2	6	0	1	2	0
Unskilled Labor	0	1		0	0	0	0	0	0	0	0	0
Housewife	13	20		5	6	2	18	14	4	6	3	3
Number Brothers and Sisters (mean)	2.4	2.6		1.8	2.3	3	2.9	5.2	5.3	3.1	2.2	1.6

Table 3.2 (cont.)

	Metropolitan University						State University					
	General			Intensive			General			Intensive		
	CT	ST	US	CT	ST	US	CT	ST	US	CT	ST	US
Birth Order (number)												
1st	16	12		5	2	3	13	9	1	2	0	2
2nd	12	12		4	4	1	11	12	1	6	6	2
3rd	5	7		0	2	0	3	5	4	0	3	0
4th	1	4		1	1	0	5	4	0	2	1	1
5th	0	2		0	1	0	0	1	1	0	0	0
Over 5th	1	1		0	0	0	1	1	1	0	0	0
Type of Childhood Community (number)												
Rural	5	0		2	1	0	8	2	1	2	1	0
Urban	13	8		3	2	3	9	10	2	2	3	1
Suburban	9	18		4	6	1	6	13	2	3	5	1
Inner City	1	6		1	1	0	0	1	0	0	1	0
Small Town	6	5		2	0	0	9	6	3	3	0	3
*Elementary School Description												
SES (number)												
Low	7	6		1	1	0	3	4	3	1	0	1

*Data refers to Elementary School participant attended.

Table 3.2 (cont.)

	Metropolitan University						State University					
	General			Intensive			General			Intensive		
	CT	ST	US	CT	ST	US	CT	ST	US	CT	ST	US
Middle	25	24		8	8	4	28	24	4	8	8	4
Upper	3	9		0	1	0	2	5	1	1	2	0
Ethnicity (number)												
Predominently Anglo	19	20		9	4	3	26	12	4	7	3	4
Predominently Asian	0	0		0	0	0	0	0	0	0	0	0
Predominently Black	4	2		0	1	0	3	0	0	0	0	0
Predominently Hispanic	0	3		0	1	0	2	0	2	0	1	0
Size (number)												
Small-500 or Less	21	15		6	5	1	29	14	4	8	4	4
Medium-500 to 1500	13	24		3	5	3	4	18	3	2	4	1
Large-Over 1500	0	0		0	0	0	0	0	1	0	1	0
General Impression (number)												
Mostly Favorable	30	28		7	5	3	27	20	6	8	9	4
Somewhat Favorable	4	9		3	3	1	3	5	2	2	0	0
Neutral	1	2		0	2	0	1	4	0	0	1	1
Somewhat Unfavorable	0	0		0	0	0	2	3	0	0	0	0
Mostly Unfavorable	0	0		0	0	0	0	0	0	0	0	0

Table 3.2 (cont.)

	Metropolitan University						State University					
	General			Intensive			General			Intensive		
	CT	ST	US	CT	ST	US	CT	ST	US	CT	ST	US
*Junior High Description												
SES (number)												
Low	6	6		1	0	1	1	1	3	1	2	1
Middle	23	21		7	7	0	29	26	4	8	8	4
Upper	3	8		1	1	0	1	4	1	1	0	0
Ethnicity (number												
Predominently Anglo	15	14		6	2	0	19	8	3	6	1	3
Predominently Asian	0	0		0	0	0	0	0	0	0	0	0
Predominently Black	3	1		0	0	0	3	0	0	0	0	0
Predominently Hispanic	0	3		0	1	0	0	0	1	0	1	0
Size (number)												
Small-500 or Less	10	6		2	1	0	13	7	4	7	0	3
Medium-500 to 1500	19	24		5	5	1	15	20	1	3	7	2
Large-Over 1500	4	5		1	2	0	2	4	3	0	3	0
General Impression (number)												
Mostly Favorable	24	17		5	3	0	19	16	2	6	4	3
Somewhat Favorable	8	10		2	2	2	7	7	3	3	1	2
Neutral	1	4		1	3	0	0	3	1	1	2	0

*Data refers to Junior High participant attended.

Table 3.2 (cont.)

	Metropolitan University						State University					
	General			Intensive			General			Intensive		
	CT	ST	US	CT	ST	US	CT	ST	US	CT	ST	US
Somewhat Unfavorable	1	3		1	0	0	2	3	2	0	2	0
Mostly Unfavorable	0	1		0	0	0	2	2	0	0	1	0
*High School Description												
SES (number)												
Low	3	4		1	0	1	2	1	2	0	1	0
Middle	27	28		6	7	3	30	28	5	7	8	4
Upper	4	7		3	3	0	1	3	1	3	1	1
Ethnicity (number)												
Predominently Anglo	15	14		5	2	3	15	5	3	7	3	2
Predominently Asian	0	0		0	0	0	0	0	0	0	0	0
Predominently Black	2	1		0	1	0	3	0	0	0	0	0
Predominently Hispanic	0	2		0	0	0	0	0	0	0	0	0
Size (number)												
Small-500 or Less	6	2		1	1	1	10	3	2	4	1	1
Medium-500 to 1500	14	13		3	5	1	14	13	2	2	3	3
Large-Over 1500	15	23		6	4	2	9	15	4	4	6	1
General Impression (number)												
Mostly Favorable	25	23		7	6	4	23	20	5	6	8	2

*Data refers to High School participant attended.

Table 3.2 (cont.)

	Metropolitan University						State University					
	General			Intensive			General			Intensive		
	CT	ST	US	CT	ST	US	CT	ST	US	CT	ST	US
Somewhat Favorable	9	9		2	1	0	7	8	1	2	1	1
Neutral	0	3		1	2	0	1	3	1	1	0	1
Somewhat Unfavorable	1	1		0	1	0	1	0	1	1	1	1
Mostly Unfavorable	0	3		0	0	0	1	0	0	0	0	0
High School Rank (number)												
Top 2%	8	2		2	1	1	9	2	2	2	0	1
Top 10%	16	12		5	2	2	16	15	5	4	5	1
Top 25%	7	12		2	6	0	4	10	1	3	4	3
Top 50%	3	10		1	1	4	4	0	1	1	1	0
Bottom 50%	1	2		0	0	0	0	1	0	0	0	0
College Experience												
Type of College (number)												
Public	20	6		6	1	0	25	30	8	8	7	4
Private Religious	4	0		1	0	3	7	1	0	2	1	1
Private Nonreligious	11	33		3	9	1	1	0	0	1	0	0
Undergraduate Major/Minor (number)												
Elementary Education	24	16		3	2	2	25	19	2	6	8	2
Secondary Education	0	1		0	0	0	0	0	0	0	0	0
Science	3	0		2	0	0	1	1	0	0	0	1

Table 3.2 (cont.)

	Metropolitan University						State University					
	General			Intensive			General			Intensive		
	CT	ST	US	CT	ST	US	CT	ST	US	CT	ST	US
Math	0	1		0	0	0	1	2	0	1	1	1
English/Language Arts	14	6		2	6	1	10	8	3	4	0	0
Social Science	7	1		0	1	2	11	8	1	0	3	1
Fine Arts	1	0		0	0	0	5	2	0	0	1	1
Foreign Language	1	0		0	0	0	1	1	2	1	0	2
Other/Liberal Arts	12	17		10	5	3	4	1	4	4	2	0
Bilingual Education	0	0		0	0	0	2	1	1	1	0	0
Special Education	0	0		0	0	0	2	11	1	0	3	0
Early Childhood	1	1		0	0	0	0	1	0	0	0	0
General Impression of College (number)												
Mostly Favorable	30	28		10	7	4	19	24	5	7	8	4
Somewhat Favorable	4	6		0	1	0	12	7	3	3	0	1
Neutral	1	2		0	2	0	1	1	0	0	2	0
Number of Graduate Hours (mean)	47.4	0		33.8	20.0	82.7	25.8	15	55.8	31.6	0	45.6
Graduate Degree (number)												
Yes	15	0		5	0	4	15	0	4	7	0	4
No	20	38		5	10	0	18	29	4	3	10	1

Table 3.2 (cont.)

	Metropolitan University						State University					
	General			Intensive			General			Intensive		
	CT	ST	US	CT	ST	US	CT	ST	US	CT	ST	US
Type												
Master of Arts	2	0		1	0	2	2	0	2	0	0	1
Master of Science	7	0		0	0	1	3	0	0	4	0	0
Master of Education	0	0		3	0	0	9	0	1	3	0	2
Doctor of Philosophy	0	0		0	0	0	0	0	1	0	0	1
Doctor of Education	1	0		0	0	0	0	0	0	0	0	0
Current Teaching Experience												
Size of School (number)												
Small-500 or Less	4	5		1	0	0	11	9	4	1	0	1
Medium-500 to 1500	24	26		5	7	0	21	22	4	9	10	2
Large-Over 1500	7	7		4	2	3	1	0	0	0	0	2
Type of Community (number)												
Rural	0	0		0	0	0	0	0	0	0	1	1
Urban	9	13		2	4	2	16	16	4	7	3	4
Suburban	12	10		4	1	0	13	14	1	3	4	0
Inner City	13	16		4	5	2	4	1	1	0	1	0
Small Town	0	0		0	0	0	0	0	2	0	0	0
SES (number)												
Low	17	23		5	4	0	5	5	3	7	6	3

Table 3.2 (cont.)

	Metropolitan University						State University					
	General			Intensive			General			Intensive		
	CT	ST	US	CT	ST	US	CT	ST	US	CT	ST	US
Medium	17	15		5	6	3	22	19	3	2	2	2
Upper	0	1		0	0	1	6	6	2	1	2	0
Length of Experience (number)												
0-1	0	35		0	10	0	6	28	1	1	10	1
2-3	5	2		2	0	0	7	1	3	4	0	2
4-7	7	0		4	0	0	11	1	2	2	0	1
8-11	10	0		1	0	2	6	0	0	0	0	0
12-15	7	0		1	0	1	2	0	0	3	0	0
Over 15	0	0		0	0	0	0	0	0	0	0	0
Other Jobs Previously Held (number)												
Yes	22	27		8	9	2	23	23	7	8	8	4
No	11	10		2	1	2	10	6	1	2	2	1
a. Part time	13	20		5	6	3	16	22	4	6	9	3
Full time	11	5		3	3	0	6	3	3	1	0	1
b. Number of years (mean)	5.3	2.8		6.8	7.6	1.0	4.0	4.4	4.0	5.2	2.4	4.0

Information about the student teachers' family background and the communities where they were raised was also obtained. The students reported that their fathers held a variety of occupations: educators (10.7%), professionals (33.3%), white collar (27.4%), skilled labor (26.2%), unskilled labor (2.4%). The mothers of the student teachers were employed as educators (12.9%), professionals (2.4%), white collar jobs (14.4%), skilled labor (17.6%), and unskilled labor (1.2%). Slightly over one-half (51.8%) of the mothers of student teachers did not work outside of the home. Over one-half of the student teachers were either first born (26.1%) or second born (38.0%) in their families. The student teachers grew up in many communities with most having lived in suburban areas (48.4%). Others were reared in urban communities (25.3%), small towns (12.1%), inner cities (9.9%) and rural areas (4.4%).

General information was also obtained regarding the educational backgrounds of the student teachers. Over 70.0% of the student teachers described elementary, junior high and senior high schools they attended as serving students of predominantly middle SES. Less than 11.0% attended an elementary, junior high, or senior high school serving mainly lower SES students, and less than 19.0% attended an elementary, junior high, or senior high school that served mainly upper SES students.

Student teachers also provided information regarding the ethnicity of the schools they attended. Forty-four percent of the student teachers attended elementary schools that were predominantly (over 90.0%) Anglo while 47.3% attended more ethnically mixed elementary schools. Approximately 9.0% of the student teachers attended elementary schools that were either predominantly Black or Hispanic. By junior high the picture had changed rather dramatically. Only 33.0% of the student teachers attended junior high schools that were predominantly (over 90.0%) Anglo, Black, or Hispanic, and 66.7% attended more ethnically mixed junior high schools. The same picture held essentially for senior high schools with only slight variation: 30.0% in predominantly Anglo, Black or Hispanic senior high schools and 69.9% in more ethnically mixed schools.

Information on the student teachers' general impressions of the schools and their high school rank was also obtained. At least 80.0% of the student teachers expressed favorable impressions of their elementary, junior high and senior high schools. Student teachers also reported their high school ranks. Only 5.4% graduated in the top 2.0% while 39.1% graduated in the top 10.0% of their class, and 34.8% graduated in the top 25.0% of their class.

The college backgrounds of the student teachers indicate that 50.0% went to college at a public university, 47.8% to a private non-religious school and 2.2% to a private religious college for most of their college experience. Most of the student teachers (43.2%) were in an elementary education degree program, 25.0% in liberal arts programs, and 12.5% in special education. The remaining students were in other areas. Student teachers (92.3%) reported favorable impressions of their colleges. Although 23.6% had obtained some graduate hours, none had obtained graduate degrees.

The student teachers also reported information about their teaching assignments. Most (74.2%) were in medium-sized schools (500-1500), with 15.7% in schools with under 500 students and 10.1% in schools with over 1500 students. These schools were generally located in urban (38.9%) or suburban settings (35.5%), but some were in inner cities (25.6%). Forty-three percent of the student teachers indicated that they were in schools serving predominantly low SES pupils. Forty-eight percent were in predominantly middle SES schools and 8.9% were in predominantly upper SES schools.

Student teachers also provided information on jobs they had held and their memberships in professional organizations. Nearly 80.0% of the student teachers had had jobs other than teaching. Eighty-four percent of those jobs were part-time, and 72.0% were skilled labor jobs. Student teachers belonged to few professional organizations and in relatively small numbers. It is not surprising that none of the student teachers belonged to either the National Education Association or the American Federation of Teachers. Special interest organizations such as the Council for Exceptional Children were listed by 14.0% of the student teachers while regional associations (other than NEA or AFT) were listed by 10.8%. Nearly two-thirds (64.5%) of the student teachers did not indicate any professional memberships.

In addition, student teachers were asked about prior related experiences. Their reports varied. Only one of the 20 of the intensive sample members failed to name any prior experience which could bear some relation to student teaching; 11 named more than one prior related experience. The most frequently offered response was teaching in Sunday school or Bible school. The next most frequent responses (mentioned equally often) were: working in a private or a special school setting; working with Boy Scouts, Girl Scouts, or similar youth organizations; working in a day camp or child day care setting; and, working in dance or athletics camps or clinic. Other less frequent responses indicated experience with babysitting; peer counseling and/or tutoring; teacher aide work; and one student teacher had previously worked as a substitute teacher.

Cooperating teachers. In the sample of cooperating teachers in the two school districts, there were 3 males and 85 females. The mean age of these teachers was 38.9 years with a range from 23 to 63 years of age. In regards to ethnicity, 80.7% were Anglo, 6.8% were Asian, 8.0% were Black and 4.5% were of Hispanic origin. Of those reporting, 96.6% were teaching at the elementary level. The mean number of years of experience accumulated by the cooperating teachers was 14.4 years with a range from one to 35 years.

Information was also obtained about the family background of the cooperating teachers and the communities where they were raised. The occupations of their fathers were educators (8.1%), professionals (25.7%), white collar/management (31.1%), skilled labor (27.7%), and unskilled labor (5.4%). The mothers of the cooperating teachers were employed in the following occupations: 18.8% were teachers, 5.0% were professionals, 11.2% held white collar/management jobs, 12.5% were skilled labor, and none worked in unskilled labor. The remaining 52.5% were housewives. Over three-quarters (78.2%) of the cooperating teachers were either first or second born in their families. The cooperating teachers also described the communities in which they were reared: 17.4% in rural, 31.4% in urban, 25.6% in suburban, 2.3% in inner city, and 23.3% in small town environments.

General information was also obtained regarding educational backgrounds of the cooperating teachers. Approximately 80.0% of the cooperating teachers described the elementary, junior high and senior high schools that they attended as serving students of predominantly middle socioeconomic status (SES). Less than 14.0% attended elementary, junior high or senior high schools serving low SES students and less than 13.0% attended elementary, junior high or senior high schools serving upper SES students.

The cooperating teachers also provided information on the ethnicity of the schools they attended. Over two-thirds (69.3%) attended elementary schools that were predominantly Anglo (more than 90.0%) while 8.0% attended predominantly Black elementary schools and 2.3% attended predominantly Hispanic elementary schools. Twenty percent attended more ethnically mixed elementary schools. Although more cooperating teachers attended ethnically mixed junior high schools (40.9%) and senior high schools (46.6%), over half (52.3%) attended predominantly Anglo junior high schools and 47.7% attended predominantly Anglo senior high schools. Only a few attended predominantly Black junior high schools (6.8%) or predominantly Black senior high schools (5.7%).

Information on the cooperating teachers' general impressions of the schools and their high school rank was also obtained. Nearly 90.0% of cooperating teachers reported favorable impressions of their elementary, junior high and senior high schools. The favorable impressions do not seem surprising in light of the high school ranks reported. Nearly one-quarter (23.9%) graduated in the top 2.0% of their class while nearly one-half graduated in the top 10.0% of their class.

General information was also obtained regarding colleges attended by cooperating teachers. In this sample 67.0% of the teachers obtained their college education at a public university, 15.9% at a private religious institution, and 17.0% obtained degrees from private non-religious schools. Most of these teachers obtained their degrees in elementary education (47.7%), but a substantial number also obtained their degrees in English or language arts areas (10.2%), bilingual education (12.5%), and other liberal arts areas (15.9%). The remaining teachers obtained degrees in other areas. Nearly all (97.7%) of the cooperating teachers reported favorable impressions of their colleges. Most of the cooperating teachers had obtained a graduate degree. Of those persons with degrees the majority had obtained Masters of Education degrees (62.9%). One-fifth (20.0%) had obtained a Master of Science degree, 14.3% a Master of Arts degree and 2.9% a Doctor of Education degree.

A description of the schools currently being served by these teachers was also obtained. Most (67.0%) work in medium-size schools (500-1500), although 19.3% work in small schools (under 500) and 13.6% work in schools with over 1500 students. The communities in which these schools are located include urban (39.1%), suburban (36.8%) and inner city (24.1%) areas. Over one-half (52.9%) of the teachers serve predominantly middle SES students, with 39.1% working with predominantly low SES students and 8.0% with predominantly upper SES students. The teachers ranged in length of service at these schools from 1 to over 15 years.

Cooperating teachers also provided information on jobs they have held and their memberships in professional organizations. Seventy percent of the cooperating teachers have had jobs other than teaching. Of those jobs, 64.5% were part-time and 64.0% were skilled labor jobs. Nearly one-third (31.8%) of the cooperating teachers were members of the National Educational Association while 13.6% were members of the American Federation of Teachers. Cooperating teachers were also members of a wide variety of other organizations; 20.5% were members of honorary societies and 11.5% were members of curriculum-related organizations such as the National Science Teachers Association.

Participants were also interviewed about their experience and training as cooperating teachers. Wide ranges of experience in the cooperating teacher role were reported, and a difference across sites was evident. Four of the 10 cooperating teachers in the Urban school district intensive sample had a decade or more of experience in that role; two of these had been cooperating teachers for more than 20 years. In contrast, only one of the 10 cooperating teachers in the Lakeview district intensive sample had more than 20 years of experience in the role; the remaining teachers had all worked with student teachers for less than 10 years. Across both sites, the overall ranges of experience as cooperating teachers were the following (according to interview data): from zero to 23 years, from one to five grade levels per teacher, from one to three schools, and from one to two districts.

Also, 19 of the 20 intensive sample cooperating teachers said that they had been student teachers while completing their own degree and certification/credentialing requirements. Four of them did student teaching at the secondary level, although only two teachers in the sample were currently working at the secondary level. All of the cooperating teachers were able to describe their general impressions of their own student teaching experiences. Almost half offered responses characterized by strong positive affect ("it was excellent," "great," "fantastic," "inspiring," etc.); about one third of the responses were characterized by strong negative affect ("terrible," "miserable...[it was] deadly," etc.); and the remainder expressed either neutral or ambivalent feelings ("mixed feelings," "had a good cooperating teacher...[but the] university supervisor never helped").

University supervisors. Perhaps the group about which the least is understood are those persons who work at or through the university and supervise student teachers. Of the 17 supervisors in this sample 4 were males and 13 were females. Their ages ranged from 24 to 62 years with a mean of 39.1 years. This group was predominantly Anglo (70.6%) with 5.9% Black and 23.5% Hispanic. Their teaching experience ranged from two to 41 years with a mean of 15.7 years.

Information about the family background of the supervisors and the communities in which they were raised was also obtained. Fathers of university supervisors were employed in several types of jobs: educators (26.7%), professionals (13.3%), white collar (33.3%), and skilled labor (26.7%). The supervisors' mothers were also employed as educators (18.8%),

89

professionals (6.3%), white collar jobs (12.5%), and 6.3% unskilled. More than one-half (56.3%) of the supervisors' mothers were housewives. Over one-half of the university supervisors were either first born (35.3%) or second born (23.5%) in their families. The university supervisors indicated that they were reared in a wide range of communities: rural (5.9%), urban (35.3%), suburban (23.5%), and small towns (35.3%). None of the university supervisors were raised in the inner city.

General information was also obtained regarding the educational backgrounds of the university supervisors. Elementary schools attended by the university supervisors served predominantly middle SES students (70.6%) or low SES students (23.5%). Most (57.1%) of the university supervisors attended junior high schools which served predominantly middle SES students, and 35.7% attended junior high schools serving mainly low SES students. Most of the university supervisors (70.6%) attended high schools which were predominantly medium SES.

University supervisors also provided information on the ethnicity of the schools they attended. Sixty-five percent of the university supervisors attended elementary schools that were predominantly (over 90%) Anglo while 23.5% attended more ethnically mixed schools. Twelve percent of the university supervisors attended predominantly Hispanic elementary schools. During junior high school, 58.8% of the university supervisors were attending ethnically mixed schools while 35.3% were attending predominantly Anglo schools and 5.9% were attending predominantly Hispanic schools. In high school, 52.9% of the university supervisors attended ethnically mixed schools while the rest (47.1%) attended predominantly Anglo schools.

Information on the university supervisors' general impression of the schools and their high school rank was also obtained. Supervisors reported mostly favorable impressions of elementary school (76.5%) and somewhat to mostly favorable impressions of junior high (80.0%) and high school (76.5%). University supervisors also reported their high school rank. Their rankings were comparable to those of the cooperating teachers and substantially higher than those of the student teachers. Twenty-three percent graduated in the top 2.0% of their class, and 47.1% graduated in the top quarter of their class.

Their college training was done primarily (70.6%) at public universities although 23.5% attended private religious and 5.9% received their training at private non-religious institutions. Their college majors included elementary education (35.3%), social science (11.8%), English/language arts (11.8%), and a variety of other education specialities. All university supervisors (100.0%) reported favorable impressions of college. All had acquired some graduate course hours with a mean of 57.6 hours. Nearly three-quarters (70.6%) had obtained a graduate degree; of those with degrees, 44.4% had a Master of Arts degree, 33.3% had a Doctor of Philosophy degree, and 22.2% had obtained a Doctor of Education degree.

The supervisors were asked to describe their teaching situations during most of their teaching careers. In regards to the size of the school in which they taught, 31.3% were in small (under 500) schools, 37.5% in medium-size schools (500-1500) and 31.3% were in schools with over 1500 students. The supervisors indicated that these schools were located in rural areas (5.9%), urban (58.8%), suburban (5.9%), inner city (17.6%) and small towns (11.8%). The SES level of the students in those schools was as follows: Low--35.3%, Middle--47.1%, and High--17.6%. The supervisors' length of service in these schools ranged from less than two years to over 15 years. Seventy-five percent had worked between 1 and 11 years in these schools.

University supervisors also provided information on jobs they have held and their memberships in professional organizations. Over three-quarters (76.5%) of the university supervisors have had jobs other than teaching. Seventy-one percent of those jobs were part-time, and 53.0% were skilled labor jobs. University supervisors reported belonging to a variety of professional organizations with 11.8% belonging to the National Education Association. Nearly one-half (47.1%) belonged to honorary societies, and 17.6% belonged to curriculum-related organizations. Almost one-quarter (23.5%) did not indicate any professional memberships.

When interview data were examined a site difference was evident in the amount of prior experience reported by the university supervisors. Four out of the five supervisors at State describe their supervision experience in terms of zero to three semesters (including one of the two faculty members); the fifth stated that he/she had been a supervisor for 22 years. In contrast, two of the supervisors at Metropolitan University indicated that they had 10 years of supervisory experience with the institution; one of these stated that he/she had supervised for two other institutions as well. The other two Metropolitan supervisors had responded to the question, "Have you worked as a supervisor before?" with comments such as, "Well, of course," without specifying the number of years. All of the supervisors indicated whether or not they had worked with teachers in their present schools prior to the current year; all four of the Metropolitan supervisors had, whereas only one of the State University supervisors responded clearly enough for the research team to be certain that he/she had in fact been a supervisor in two of the same schools prior to that semester.

In sum, the background data on the student teachers, cooperating teachers and university supervisors indicate that a diverse group of persons was included in the sample. They originated from a wide variety of family, educational and teaching backgrounds. The broad range of background characteristics of the participants in this study provided an opportunity to examine the relation of these previous experiences to the student teaching experience.

Site Description

Characteristics of participating universities. Two universities were involved in this study; Metropolitan University and State University. Metropolitan University is an exclusive private institution of approximately 27,000 students located in a major urban area. Its College of Education includes 58 full-time faculty, nine joint appointments, and 110 adjunct faculty and lecturers. State University, on the other hand, is one of the largest state institutions in the country, enrolling close to 47,000 students. Approximately 2,350 students were seeking certification through completion of requirements at the university (the number is inclusive of graduate students, those in language arts, etc.). The State University College of Education employs approximately 152 full-time equivalent faculty members. It is located in a midsize city with some light industry. Both institutions offer bachelor's, master's and doctoral programs in education which are fully accredited by state, regional and national agencies. The following portion of this section will briefly describe the student teaching programs at State University and Metropolitan University. For a more detailed examination of the programs at these individual institutions, the reader is referred to another report (Defino, et al., Note 11).

The student teaching programs at both State University and Metropolitan University can be examined in terms of three major areas: (1) the individual roles and responsibilities of the student teacher, the cooperating teacher, the university supervisor, and the school administrator, (2) prescribed university curricula, and (3) recommended guidelines for observations and evaluations. Both programs will be described with regard to these three areas as well as comparing and contrasting the programs at each institution. The data sources for these descriptions are official university and public school documents.

The information provided in Figure 3.1 summarizes the expected roles and responsibilities of the individuals involved in the student teaching programs at both Metropolitan and State Universities. Although school administrators and support staff are not directly tied to the student teaching experience, their influence indirectly affects student teachers. Responsibilities of the school administrators and the school librarian (the only individual in the support staff mentioned at either institution) will therefore be discussed.

The most obvious difference between the two programs may lie in the information provided the school librarian. Whereas State University provides the school librarian with a detailed account of his/her responsibilities, Metropolitan chooses not to provide the librarian with information in a printed format.

At the same time, Metropolitan appears to describe the responsibilities of the cooperating teacher in a slightly more detailed fashion. Its materials provide the cooperating teacher with guidelines for his/her responsibilities to the pupils in his/her classroom during the stay of the student teacher, and State does not. Both programs, however, emphasize organizational policies, (e.g., when to schedule meetings, policies regarding absences, moving a teacher, calendar holidays, etc.).

Metropolitan University	State University
Information Provided for the School Administrator	
1. General responsibilities 2. Responsibility to public school pupils 3. Responsibility to staff 4. Responsibility to the university 5. Responsibility to the student teachers	1. Responsibility to staff 2. Responsibility to university supervisor 3. Responsibility to student teachers 4. Responsibility to school district
Information Provided the Cooperating Teacher	
1. Criteria for the selection of cooperating teachers 2. Responsibility to public school pupils 3. Responsibility to public school 4. Responsibility to the student teacher 5. Responsibility to the university	1. General responsibilities 2. Responsibilities of the student teacher 3. Responsibilities of the university supervisor 4. General policies (absences, calendar, moving, etc.) 5. Suggestions for organizing time with the student teacher
Information Provided to Student Teacher	
1. Responsibilities in the classroom 2. General policies 3. Lesson planning, explanations, and examples 4. Curriculum check lists 5. Observation guides 6. Specific responsibilities (films, stories, etc.)	1. Changing assignments 2. Responsibility of university supervisor 3. Responsibility of cooperating teacher 4. Responsibility of student teacher 5. Legal rights 6. School calendar 7. Absentee policies 8. Outside responsibilities 9. Assessment
Information Provided to University Supervisor	
1. Criteria for the selection of university supervisors 2. Responsibility to schools 3. Responsibility to university 4. Responsibility to cooperating teacher	1. Responsibilities of university supervisor, cooperating teacher, and student teacher 2. Placement of student teachers 3. Guidelines for initial meetings
Information Provided to School Librarian	
(No information provided for school librarian.)	1. Responsibility to student teacher 2. Responsibility to cooperating teacher 3. Responsibility to school administrator

Figure 3.1 The Individual Roles and Responsibilities of Individuals Involved in the Student Teaching Experience

With regard to the university published bulletins, Metropolitan provides the elementary student teacher with two handbooks, and the secondary teacher with one. State provides one handbook for both the elementary and secondary student teachers. Whereas both institutions' major emphasis falls on organizational issues, Metropolitan appears more concerned with curriculum. For example, the section in the State handbook explaining materials preparation discusses whose supplies will be used rather than giving suggestions for constructing materials or examples of specific pieces of instructional material. Metropolitan provides examples of detailed lesson plans in a variety of subject areas. Its focus on curriculum is exemplified in such items as the student teachers' checklist for reading a story to the class. Suggestions appear on this checklist that tell the student teacher how to prepare for the reading of a story to students, what to watch for while reading the story and what types of questioning might follow.

On the other hand, State provides more information to the university supervisor than to any other member of the triad. Again, State seems to emphasize organization, perhaps in an effort to minimize disruption of the public school routine. Examples of Pacing Guides, Feedback Reports, and Anecdotal Records are provided in the State supervisor's handbook. A list of teaching skills is also provided which may serve as a checklist during the observation of the student teacher. Such areas as behavior management, organization of the classroom, discussion skills, instructional methods and evaluation and testing are discussed. Metropolitan's handbook simply states that the university supervisors are responsible for observing and evaluating the student teacher but provides no specific information as to how to organize for these evaluations.

The major difference between Metropolitan's and State's practice related to university supervisors may lie in who assumes financial remuneration for these individuals. Whereas State's university supervisors are, for the most part, graduate students working part-time, Metropolitan's university supervisors are jointly employed full-time by both the university and the school system. The university supervisor positions at Metropolitan appear more stable. The criteria for selecting a university supervisor at Metropolitan are determined by a committee composed of representatives from both the university and the school system. The financial responsibility for the salary of the university supervisor is also shared between district and university. Such a selective process may result in a more stable population of university supervisors.

The information provided in Figure 3.2 summarizes the prescribed curricula for the teacher education programs at each institution. Perhaps the most obvious difference between the programs at Metropolitan and State is in the area of Academic Foundations. Whereas State has no formal requirements in the Humanities (other than the required English courses) Metropolitan requires from 18 to 24 units of work in the Humanities. As the data in Figure 3.2 indicate, State University emphasizes work in the social sciences at the apparent cost of work in the Humanities. Other areas appear to be similar although State University seems to place more emphasis on professional development for the Elementary Education majors. Also, with regard to an emphasis in an academic area State requires Elementary Education majors to stipulate only one area of academic concentration. Metropolitan on the other hand requires a major area and a minor area of academic concentration. Secondary majors at State are required to obtain two areas of academic

	Metropolitan University		State University	
	Elementary	Secondary*	Elementary	Secondary
English Speech	18-24 units	varies according to program in which student is enrolled	12 hours	12 hours
Natural Science	18-24 units	"	12 hours	12 hours
Social Science	18-24 units	"	24 hours	21 hours
Humanities	18-24 units	"	no required courses	-----------
Professional Preparation	24 units	24-29 units	30 hours	18 hours
Academic Area	major-16 units minor-8 units	varies according to program in which student is enrolled	major-18 hours composite-18 hours	area 1 - 24 hours area 2 - 24 hours (or one composite area totaling 57 or more hours)
Electives	as many as needed to reach total required for graduation	"	as many as needed to reach total required for graduation	
Total	128 units	128 units	126 hours	126 hours

*The secondary program at Metropolitan University varies according to the bachelor's degree program in which the student is enrolled. Acceptable academic majors offered at Metropolitan are: art, English, foreign languages, government, history, life science, music, physical education, and social science.

Figure 3.2 Prescribed University Curricula

specialization by obtaining an equal number of hours in both. Exceptions to this would include those students who choose to elect a composite area of specialization. Secondary students at Metropolitan may become certified in only one major area if they so choose.

The information provided in Figures 3.3 and 3.4 summarize the data regarding observation and evaluation forms. Each institution provides the student teacher with observation information. However, State provides the student with two means of written feedback following an observation while Metropolitan provides the student teacher with one piece of written feedback. State asks that the student teacher fill out a form which taps his/her own perceptions of the teaching situation that was observed. In addition the university supervisor and/or cooperating teacher fills out an anecdotal record when the observation takes place. Metropolitan, on the other hand, provides the student teacher only with the information from the university supervisor and uses no formal means of self-evaluation for the student teacher.

The observation forms filled out by the university supervisor at each campus differ in their format. Whereas the State form is simply a blank page where the supervisor describes objectively what took place during the student teacher's lesson, Metropolitan's observation forms are more structured. The observation form at Metropolitan asks for information in three areas: (1) the subject in which instruction was taking place during the visitation, (2) the comments and recommendations of the supervisor, and (3) additional assignments for the student teacher.

As the data in Figure 3.4 indicate, the final evaluation forms at both institutions are similar. Each form requires the evaluator to respond in a Likert-scale format to statements regarding the student teacher's performance.

	Metropolitan University	State University
Self-Evaluation by Student Teacher Following an Observation	(no printed format provided)	1. Instructional means which were effective in achieving ends 2. Alternative means for achieving same ends 3. Areas of needed improvement
Observation	1. Subject areas covered during visitation 2. Comments and recommendations for the student teacher 3. Assignments for student teacher	No specific areas addressed (Blank form provided)

Figure 3.3 Observation Forms

		Metropolitan University		State University
Personal Qualities	1.	Effective communication skills	1.	Communicates effectively with adults and students
	2.	Appearance - poise - self-control - professional - dress - voice and speech patterns	2.	(No information requested regarding appearance on elementary form. Secondary form asks if student teacher is clean and well groomed)
	3.	Attitude (profits from feedback)	3.	Attitudes - seeks professional growth - accepts and uses suggestions - acknowledges divergent views - sense of humor
Instructional Competencies	1.	Planning - daily and long term planning - pupil oriented curriculum - organizes environment - diagnoses pupil needs and relates them to objectives	1.	Planning - chooses curriculum and method based on pupil need - organizes environment - plans appropriate curriculum
	2.	Effective implementation of lessons - presented clearly - flexible - creative	2.	Effective implementation of lessons
	3.	Evaluation of students - pupils grow relative to capabilities - student teacher is a self-evaluator	3.	Evaluation of students
Behavioral Management	1.	Effective behavioral management	1.	Effective behavioral management

Figure 3.4 Final Evaluation Forms

The final evaluation forms also provide space for general comments. On the State form, however, those statements which the evaluator rated the student teacher in a Likert-scale format are repeated. Following each statement additional space is provided for written comments. The Metropolitan form on the other hand provides the evaluator with the statements once, then provides an entire page for general comments. Whereas the Metropolitan form asks the evaluator to comment on 24 statements, the State form contains 11 statements. The focus of the statement on both the State form and the Metropolitan form can be classified into three areas; (1) personal qualities, (2) instructional competencies and (3) behavior management competencies.

With regard to personal qualities both programs ask for ratings which indicate success in communication with both adults and children, as well as the general attitude of the student teacher. Metropolitan, however, goes further in that they ask for ratings on poise, self control, professional appearance, and voice and speech patterns. State asks for no information in these areas.

Each institution also focuses attention on the student teacher's instructional competencies. Information is requested with regard to the student teacher's ability to plan lessons, present lessons and evaluate students' progress. Both Metropolitan and State ask that student teachers plan their curriculum around students' academic needs. As well, both institutions ask that student teachers effectively organize the classroom environment and supply students with appropriate materials to insure optimum learning. Unique to the Metropolitan final evaluation form is the focus on both daily and long term planning. With regard to how the student teacher presents the lesson to the class, the Metropolitan evaluation form also asks for more specific information than does State. The Metropolitan form solicits information with regard to clarity, flexibility, and creativity of the presentation. Both institutions request approximately the same amount of information regarding the evaluation of students' progress. Finally, information about the student teachers' knowledge of the curriculum is a parenthetical portion of one question on the Metropolitan evaluation and is omitted altogether on the State evaluation.

To summarize, student teaching programs at State and Metropolitan are comparable in some areas while different in others. When information from each institution regarding individual roles and responsibilities was examined three major differences were noted. First, while State provides the school librarian with a list of specific responsibilities, Metropolitan did not. Secondly, the financial responsibility of Metropolitan's university supervisors is shared jointly by the Urban schools and the University. Metropolitan's supervisors were therefore a stable population of "professional" university supervisors. On the other hand State University's supervisors were generally part-time employees working toward advanced degrees in education. State University assumed full financial responsibility for their supervisors. Finally, the information provided for student teachers differs at each institution. While Metropolitan focuses on how to instruct the elementary school curriculum, State places more emphasis on the organization of the student teaching experience. State appears to want as little interference in the public school program as possible and therefore spends much time on public school and university policies and scheduling.

The prescribed university curriculum for teacher training was also examined. Although the total number of credits needed for graduation is comparable, two major differences were noted. First, most Metropolitan Elementary Education majors are encouraged to pursue a B.S. in General

Studies. General studies includes intensive academic work in the Humanities. State, on the other hand, requires no course work in the Humanities beyond lower division coursework in either their Elementary or their Secondary Education programs of work. Secondly, state law requires Metropolitan students to complete a fifth year of course work within seven years following graduation in order to maintain teacher certification. The legislature which controls State requires no formal course work beyond the B.S. in Education.

The final area examined was the prescribed guidelines for formal observation and evaluation of student teachers. With regard to formal observations, two differences were noted. First, State provides the student teacher with two forms following an observation by the supervisor. One form is completed by the student teacher and one is completed by the university supervisor during the observation. The form completed by the student teacher is meant to serve as a means of self evaluation. Metropolitan, on the other hand, provides the student teacher only with comments from the university supervisor following an observation. The second major difference with regard to observations deals with the structure of the form itself. While the Metropolitan observation form asks for specific information, the State observation form is a blank page. At State the university supervisor is asked to fill the page with an anecdotal record of the observation. When final evaluation forms were examined slight differences were noted both in their content and structure. The State and Metropolitan final evaluation forms each provide the evaluator with statements on which they are asked to rate the student teachers on a Likert-scale format. State, however, repeats these statements and asks for further comments; Metropolitan does not. In addition, the Metropolitan form provides an entire page for additional comments whereas the State form provides minimal space for additional comments. With regard to the content of each form, two minor differences were noted. First, the Metropolitan form is more detailed. Secondly, the Metropolitan form asks for information on the appearance of the student teacher and State does not request information in this area. In general, each form focuses on the same areas; (1) personal qualities, (2) instructional competencies and (3) behavior management.

Characteristics of participating elementary and secondary schools and their populations. Two school districts were involved in this study: Lakeview and Urban. (Once again, the names of these locations have been changed to ensure their anonymity.) The sixteen schools at the Lakeview site were drawn from two adjacent school districts. Fourteen participating schools are in one district, and two are from the other. Ten schools participated at the Urban location. The following section will describe briefly the pupil characteristics at all participating schools, their class and staff sizes and finally, the grade level compositions of these schools. For a more detailed description of these schools and their populations, the reader is referred to an earlier RITE report (Defino, et al., Note 11).

With regard to the characteristics of the pupils at the participating schools cultural diversity and the SES of the pupils were investigated. Cultural diversity was measured by the number of languages reported as spoken at each school. The data in Table 3.3 indicate that while 20 languages were spoken at the Urban schools, only three were reported as spoken at the Lakeview schools. Urban schools had both higher overall frequencies of foreign languages as well as a greater variety of languages spoken than did Lakeview schools.

Table 3.3

List of Languages and Number of Schools in Which They Were Spoken

	Lakeview (16 schools in sample)	Urban (10 schools in sample)
Arabic	0	2
Armenian	0	1
Bengali	0	1
Chinese	1	5
Farsi	0	1
French	2	1
German	0	1
Japanese	0	5
Korean	0	8
Laotian	0	1
Malay	0	1
Norwegian	0	1
Persian	0	1
Philipino	0	4
Samoan	0	2
Spanish	2	5
Sudanese	0	1
Tagalog	0	2
Thai	0	1
Vietnamese	0	5

The SES information from the Lakeview schools was somewhat skewed by the inclusion of the two schools in the adjacent district. Both of these schools reported that 75% of their pupils came from middle to upper income families. Of the remaining Lakeview schools, 12 reported that their children came from middle income families, while two schools reported that their pupils were from low income families. On the other hand, Urban schools reported that 11.9% of their pupils came from upper income families, 41.6% were from middle income families and the remaining 42.4% were reported to be from low income families. Therefore, both sites, on the average, seemed to consist of mostly pupils from middle and low income families, with lower incomes appearing to be slightly overrepresented.

With regard to staff and class sizes, Urban schools were somewhat larger than those schools in the Lakeview area. On the average, Urban schools contained twice as many administrators, faculty, staff and pupils than participating schools in Lakeview. Classroom size was slightly larger in the Urban schools as well. Observed Lakeview classrooms contained approximately 22.34 pupils per classroom, while those observed in the Urban schools contained an average of 28.34 pupils each. In addition Urban was a much larger district both in terms of geography and number of students.

The grade level composition of the schools varied across sites as well. The Lakeview schools showed much greater variety of grade level composition. Six participating Lakeview schools housed grades K-6; three housed K and 4-6 only; three housed K-3 only; and one each contained grades 3-5, 4-6, 5-6 and K and 3 only. Urban on the other hand reported five schools which housed K-6, two schools as preK-6, one housed K-9, one housed 7-9, and one housed grades 10-12. All 10 Urban school buildings were more than 10 years old.

In sum, the Urban schools were more culturally diverse with a greater variety of languages spoken than those in the Lakeview area. On the other hand SES seemed consistent across both sites with lower incomes somewhat overrepresented. Teacher/pupil ratios in observed classrooms indicated more pupils per classroom in the Urban schools. The sites also differed according to the grade level composition of the schools. Schools in the Lakeview area housed a greater variety of grade level combinations.

Summary

Characteristics of the participants, the universities, and the elementary and secondary schools have been presented in this chapter. When participants were examined, it was noted that a diverse group of individuals took part in this study. The family, educational and teaching backgrounds of the participants varied greatly.

With regard to the two universities involved in the study, the teacher education programs at each institution were comparable in some areas. When individual roles and responsibilities were examined it was noted that individual roles varied only slightly. For example, state provided information for some of the support staff involved in the student teaching experience (i.e., the librarian) while Metropolitan did not. In addition, State provided the student teacher with more information about the organization of the student teaching experience while Metropolitan focused more on the curriculum to be implemented during the student teaching experience. Perhaps the most notable difference between the two institutions was with regard to the university supervisors. Where Metropolitan University shared the financial responsibility of the university supervisor salary with the school district, State University had the sole financial responsibility for their university supervisors.

The prescribed university curriculum for teacher training was also examined. Although the total number of credits needed for graduation is comparable, two major differences were noted. First, most Metropolitan Elementary Education majors are encouraged to pursue a B.S. in General Studies. General studies includes intensive academic work in the Humanities. State, on the other hand, requires no course work in the Humanities either in their Elementary or their Secondary Education majors. Secondly, the state where Metropolitan is located requires the completion of a fifth year of course work within seven years following graduation in order to maintain teacher certification. The midwestern state in which State University is located requires no formal course work beyond the B.S. in Education.

The final area examined at each university was the prescribed guidelines for formal observation and evaluation of student teachers. With regard to formal observations, two differences were noted. First, State provides the student teacher with two forms following an observation by the supervisor. One form is completed by the student teacher and one is completed by the university supervisor during the observation. The form completed by the student teacher is meant to serve as a means for self evaluation. Metropolitan, on the other hand, provides the student teacher only with comments from the university supervisor following an observation. The second major difference with regard to observations deals with the structure of the form itself. While the Metropolitan observation form asks for specific information, the State observation form is a blank page. At State the university supervisor is asked to fill the page with an anecdotal record of the observation. When final evaluation forms were examined slight differences were noted both in their content and structure. The State and Metropolitan final evaluation forms each provide the evaluator with statements where they are asked to rate the student teachers on a Likert-scale format. State, however, repeats these statements and asks for further comments; Metropolitan does not. In addition, the Metropolitan form provides an entire page for additional comments whereas the State form provides minimal space for additional comments. In general, each form focuses on the same areas; (1) personal qualities, (2) instructional competencies and, (3) behavior management.

The third and final area this chapter addressed was a description of the student teaching sites. Sixteen schools participated at the Lakeview site, while 10 participated at the Urban site. Cultural diversity, SES, staff and class sizes, and grade level composition were examined. When cultural diversity was measured via the number of languages spoken at each school, Urban schools reported higher overall frequencies of foreign languages as well as a greater variety of languages. With regard to SES, both sites, on the average, seemed to consist of mostly pupils from middle and low income families, with lower incomes appearing to be somewhat overrepresented. However, staff and class sizes varied somewhat. Urban schools on the average contained more administrators, faculty, staff and pupils than participating Lakeview schools. Classroom size was also larger in Urban schools. Classrooms in the Urban setting averaged 28.34 pupils per classroom while Lakeview classrooms contained approximately 22.34 pupils per classroom. In addition, Lakeview schools housed a greater variety of grade level combinations.

CHAPTER 4

PERSONAL AND PROFESSIONAL CHARACTERISTICS OF PARTICIPANTS

A major focus of research on student teaching has been the personal and professional characteristics of the student teacher (Griffin, et al., Note 1). The present research has expanded this focus to include a broad descriptive picture of the attitudes, personality, and cognitive characteristics of not only the student teacher but also the cooperating teacher and the university supervisor. The first section of this chapter is a discussion of the various constructs that were measured and their validity. The second section describes the results of analyses of variance that were used to assess differences due to site, sample, or participant type. The third section is a discussion of analyses assessing the degree to which the participants changed during the semester. In the final section a profile of each participant type is presented. For a more detailed and technical presentation of the information presented in this chapter, see the report by Hughes and Hukill (Note 5).

Construct Validity

Personality, cognitive, and professional measures. The student teaching study reported herein presented a good opportunity to inquire into the constructs of a number of instruments, some of which have been used widely, and others, more recently developed, less so. Each instrument had shown high reliability prior to its inclusion in the study. Thus, an essential for construct validity, good reliability, was established initially for all the instruments. In addition to the twelve instruments discussed here (Figure 4.1), an experimental measure, the Teacher Work-Life Inventory (Blumberg & Kleinke, Note 8), was administered to all participants. (The outcome measures will be elaborated more fully in Chapter 8.) The number of measures used and

Construct	Instrument Title	References
Empathy	Empathy Construct Rating Scale	LaMonica, Note 2
Flexibility	Different Situations Adaptation Scale	Hughes, Griffin, & Defino, Note 3
Self-Esteem	Self-Perception Inventory Teacher Inventory	Soares & Soares, 1980
Locus of Control	James Internal-External Locus of Control Short Form	Robinson & Shaver, 1975
Conceptual Level	Paragraph Completion Test	Harvey, Hunt, & Schroder, 1961
Cognitive Style	Group Embedded Figures Test	Witkin, Oltman, Raskin, & Karp, 1971
Vocabulary	Quick Word Test	Borgatta & Corsini, 1960
Educational Preference	Educational Preferences Scale	Lacefield & Cole, Note 6
Teacher Concerns (Self, Task, Impact)	Teacher Concerns Checklist	Fuller, 1969
Expectations	Student Teacher Expectations Scale, Cooperating Teacher Expectation Scale, University Supervisor Expectation Scale	Hughes & Hukill, Note 5
Performance	Student Teacher by Cooperating Teacher and University Supervisor, Student Teacher by Self, Cooperating Teacher by Student Teacher, Cooperating Teacher by University Supervisor, Cooperating Teacher by Self, University Supervisor by Student Teacher, University Supervisor by Cooperating Teacher, University Supervisor by Self	Hughes & Hukill, Note 5
Satisfaction	Student Teaching Satisfaction Scale	Hughes & Hukill, Note 5

Figure 4.1 Instruments Used in the Student Teaching Study by Constructs

the substantial sample size provided an unusual opportunity to examine the patterns of relationship among the instruments which are displayed as an intercorrelation matrix (Table 4.1). These patterns in turn were compared to descriptions of the underlying constructs as given by the developers of the instruments. Implied relationships were sought in the data for evidence of convergent and discriminant validity. Anomalous patterns and their significance for refining or revising the construct in question were noted, as well as questions for future research. This approach provided useful validation information, as well as a heuristic for further elucidation of constructs. For a complete discussion of the instruments' intercorrelations and their implications for construct validity, see Hughes and Hukill (Note 5). The conclusions of that discussion are presented below.

The data suggest generally good construct validity for the instruments used. If anything, most of the constructs under consideration appear somewhat broader than originally conceived of by their authors. Empathy as measured in this study refers to an ability to provide individuals with appropriate affective support (LaMonica, 1981). It does not, however, seem to be associated with mutual interaction, but, rather, with affective support as a function of a helping role, i.e., nurse to patient, counselor to client, teacher to student. The Flexibility construct (Hughes, et al., Note 3) is rooted in the ability to adapt to and tolerate change in social, interpersonal settings. Self-Esteem (Soares & Soares, 1980) is apparently based on one's efficacy in managing oneself and others, opportunities to exercise authority, and evaluations of oneself by significant others. As a construct, Locus of Control (Robinson & Shaver, 1975) seems closely related to classic individualism, a belief that individuals are free agents in control of their own lives and basically equal to any others. Conceptual Level (Harvey, Hunt,

Table 4.1 Intercorrelations of Constructs Measured in Student Teaching Study

	Empathy	Locus of Control	Flexibility	Educational Preference	Self	Task	Impact	Self-Esteem
Empathy	1.00							
Locus of Control	.2450**	1.00						
Flexibility	.3855**	.3059**	1.00					
Educational Preference	.1231*	.1627*	.2738**	1.00				
Self	.0199	-.1941**	-.0900	-.1002	1.00			
Task	.0334	-.2071**	-.0867	-.0874	.5325**	1.00		
Impact	.1822**	-.0245	.1027	-.0358	.7198**	.5394**	1.00	
Self-Esteem	.4437**	.1636*	.3474**	.0525	.1888**	.1014	.2988**	1.00
Conceptual Level	.0789	.1349*	.1913**	.2354**	-.1931**	-.0292	-.1299*	.0901
Cognitive Style	.1142	.1485*	.0934	.0717	-.0249	.0460	.0308	.0217
Institutional Constraints	-.0419	-.1601*	-.0935	-.0095	.1332*	.4044**	.1015	-.0945
Rewards	.1394*	-.0077	.1579*	.0054	.1160	.0140	.2581**	.0092
School Norms	.0069	-.2774**	-.1016	-.1555*	.5081**	.4645**	.3086**	.1410*
Dissatisfaction	-.1433*	-.1905**	-.1662*	-.0351	.3367**	.4201**	.2025**	-.0680
Executive Responsibilities	.1058	-.0613	.1209	.0862	.1960**	.0691	.2889**	.2211**
Vocabulary	.0782	.1143	.1511*	.0952	-.4395**	.0182	-.1779**	.0257

Note.
If one or both scores for a given correlation were missing from a subject, the subject was dropped from that computation. Thus, the n ranged from 179 to 197, depending on the incidence of missing data.

* p < .05
** p < .01

Table 4.1 Intercorrelations of Constructs Measured in Student Teaching Study (cont.)

	Conceptual Level	Cognitive Style	Institutional Constraints	Rewards	School Norms	Dissatisfaction	Executive Responsibility	Vocabulary
Empathy								
Locus of Control								
Flexibility								
Educational Preference								
Self								
Task								
Impact								
Self-Esteem								
Conceptual Level	1.00							
Cognitive Style	.1010	1.00						
Institutional Constraints	-.1002	-.0568	1.00					
Rewards	.1134	.0321	-.0106	1.00				
School Norms	-.1847**	-.1507*	.4388**	.0988	1.00			
Dissatisfaction	-.0939	-.0739	.7205**	.0045	.6037**	1.00		
Executive Responsibilities	-.0223	-.0834	.2529**	.4796**	.4228**	.3341**	1.00	
Vocabulary	.2345**	.2654**	.0622	-.0683	-.3483**	-.0450	-.1027	1.00

& Schroder, 1961) refers to the degree to which interpersonal concepts are both differentiated and integrated. It is a cognitive-developmental construct which is associated with increasing self-definition vis-a-vis cultural norms and increasingly complex interpersonal concepts. Cognitive Style (Witkin, Oltman, Raskin, & Karp, 1971) contrasts with Conceptual Level in that it represents a trait, the ability to disembed, which is conceived to be stable after adolescence. It is associated, for example, with the analytic subscales of the Wechsler Intelligence Scales. The Vocabulary measure (Borgatta & Corsini, 1960) seems to tap more than verbal comprehension. It appears to be also a useful measure of general intelligence, at least for speakers of standard English. The Educational Preference measure (Lacefield & Cole, Note 6) reflects an educator's philosophy on a progressive-traditional continuum. The Teacher Concerns measure (Fuller, 1969) elicits teachers' concerns regarding their work. The Self and Impact factors of the Teacher Concerns instrument seem to be complementary, where Self reflects concern with others' influence over the teacher and Impact, with the teacher's own influence over others, especially students. The Task factor is primarily associated with frustrating, stressful experiences associated with day-to-day tasks. Constructs such as Empathy, Flexibility, Self-Esteem, and Educational Preference were better elucidated after comparison and contrast with others. The Locus of Control, Conceptual Level, and Cognitive Style constructs appeared well supported with few embellishments necessary. Although the Self, Task, and Impact factors of the Teacher Concerns Checklist do not appear to be developmental in nature as averred by Concerns Theory (Fuller, 1969), they do seem to make sense as constructs. Thus, based on their measures' intercorrelations, the constructs underlying the assessment of the personality, cognitive, and professional characteristics of the participants seemed to have substantial validity.

The constructs as elaborated in this study have most relevance and generalizability to the populations of public school teachers and student teachers. Further research with other populations will certainly help contribute to our understanding of these constructs and the confidence with which we use these instruments. As it stands, though, it appears that their qualified use in educational contexts is meaningful and useful.

Site, Sample and Participant Differences

A series of analyses of variance were conducted to assess the differences between the two sites (State University/Lakeview and Metropolitan University/Urban), the two samples (general and intensive), and the type of participant (university supervisor, cooperating teacher, student teacher). For those instruments that were given to all participants at both sites a 2 (State vs. Metropolitan) x 2 (general vs. intensive) x 3 (US vs. CT vs. ST) analysis of variance was used to examine possible differences within each factor and possible interactions. These analyses were conducted using measures of the following constructs: Teacher Concerns, Flexibility, Locus of Control, Empathy, Self-Esteem, Vocabulary, Cognitive Style, and Conceptual Level. As there were not equal numbers of participants in each cell, a hierarchical ANOVA technique was used and the variables were entered in the following order: site, participant type, sample, interactions. This order was selected because the site was considered the most basic characteristic, followed by the type of role the person played in student teaching, and lastly, sample as a possible confounding factor.

Site differences. Across the variety of different variables there were few differences in regards to the site (Table 4.2) on the personality, and

Table 4.2 **Means and Standard Deviations of Personality, Attitude, Cognitive, and Professional Measures by Site, Sample, and Participant Type**

	Possible Range	SU $\bar{X}$	SU s.d.	MU $\bar{X}$	MU s.d.	Intensive Sample $\bar{X}$	Intensive Sample s.d.	General Sample $\bar{X}$
Empathy	23-138	117.75	28.50	114.84	35.81	121.65	20.31	114.55
Locus of Control	11-44	32.07	9.17	30.20	10.92	32.96	7.96	30.55
Flexibility	17-102	69.17	18.65	66.45	22.37	74.80	9.59	65.54
Educational Preference Scale	30-150	95.45	28.59	87.16	30.94	100.51	10.65	88.34
Teacher Concerns Checklist								
Self	20-100	59.35	14.66	59.39	16.31	57.08	14.29	60.12
Task	7-35	18.87	6.11	19.01	7.79	19.50	4.45	18.75
Impact	29-145	103.69	27.63	97.57	37.77	106.42	19.37	98.77
Self-Esteem	36-144	112.58	36.47	105.96	46.17	113.85	35.39	107.81
Conceptual Level	0-7	1.52	.38	1.44	.31	1.56	.35	1.46
Cognitive Style	0-18	12.58	4.02	12.63	4.28	12.76	3.82	12.55
Teacher Work-Life Inventory								
Institutional Constraints	9-36	23.94	4.76	24.19	5.31	23.77	4.90	24.16
Records	7-28	21.24	3.40	20.96	3.62	21.63	2.50	20.92
School Norms	9-36	18.37	4.02	19.04	3.81	18.00	3.78	18.94
Dissatisfaction	8-32	17.56	3.66	17.98	4.14	16.75	3.27	18.11
Executive Responsibilities	6-24	18.33	2.62	17.60	2.88	17.94	2.75	17.99
Vocabulary	0-100	57.00	17.61	58.28	18.46	61.88	17.11	56.23

Table 4.2 Means and Standard Deviations of Personality, Attitude, Cognitive, and Professional Measures by Site, Sample, and Participant Type (cont.)

	General Sample s.d.	Student Teacher $\bar{X}$	Student Teacher s.d.	Cooperating Teacher $\bar{X}$	Cooperating Teacher s.d.	University Supervisor $\bar{X}$	University Supervisor s.d.
Empathy	35.25	114.18	36.37	116.74	30.44	125.67	9.33
Locus of Control	10.65	30.33	11.39	31.62	8.76	33.16	8.98
Flexibility	22.63	66.59	22.81	67.47	19.61	76.43	6.32
Educational Preference Scale	33.52	88.94	32.76	92.30	27.08	99.61	28.40
Teacher Concerns Checklist							
Self	15.80	65.12	14.80	54.78	14.63	51.69	12.21
Task	7.63	17.81	7.46	20.14	6.66	18.90	4.80
Impact	36.36	99.98	37.26	100.31	31.15	106.24	13.79
Self-Esteem	43.43	110.27	41.45	105.67	45.08	122.82	9.31
Conceptual Level	.35	1.43	.30	1.47	.34	1.82	.4'
Cognitive Style	4.25	12.35	4.12	12.95	4.25	12.12	3.60
Teacher Work-Life Inventory							
Institutional Constraints	5.08	23.31	5.17	25.02	4.51	23.06	6.08
Rewards	3.78	21.38	3.78	20.86	3.35	20.88	2.80
School Norms	3.95	19.78	3.86	17.93	3.70	17.00	3.97
Dissatisfaction	4.04	18.08	4.13	17.57	3.96	17.12	3.76
Executive Responsibilities	2.78	18.18	2.91	17.80	2.73	17.77	2.22
Vocabulary	18.13	46.98	13.34	66.21	16.35	70.94	16.10

cognitive, and professional measures. This is not particularly surprising, since many of these characteristics are considered to be stable aspects of individuals' lives and not subject to much change. The differences that did emerge may have, however, important implications. It was found that State University/Lakeview participants were more progressive in their educational philosophy than their Metropolitan/ Urban counterparts (Tables 4.2, 4.3), suggesting a closer look at what contextual factors might have contributed to this outcome. It was found that participants in the Metropolitan/Urban intensive sample were more empathic than general sample participants at either site. The State/Lakeview intensive sample participants were the least empathic of all (Figure 4.2, Table 4.4). These findings suggest that one should look closer at supervision and personal relationships at these two sites in order to understand the source or sources of the interaction between site and sample effects. Another interaction, involving sites and participant type, is found on the Flexibility construct (Figure 4.3, Table 4.5). The Metropolitan/Urban cooperating teachers report higher flexibility than their State/Lakeview counterparts. In contrast the Metropolitan/Urban student teachers report lower flexibility than the student teachers at State/Lakeview. This inverse relationship of the student teachers and cooperating teachers on Flexibility at each site is a surprising finding. It is unclear what the basis of this interaction is.

Sample differences. Especially with the different levels of involvement in the study, it might be expected that some major systematic differences might emerge in the two types of samples; however, this was not the case. Aside from the site by sample interaction of the Empathy scores reported above, there were no other differences due to sample effect.

Table 4.3

Summary of ANOVA of
Educational Preference Scores
by Site, Participant Type,
and Sample

Source	SS	dF	MS	F
Site	1404.619	1	1404.619	12.205*
Participant Type	406.047	2	203.024	1.764
Sample	.902	1	.902	.008
Site X Participant Type	576.348	2	288.174	2.504
Site X Sample	29.492	1	29.492	.256
Participant Type X Sample	118.589	2	59.295	.515
Site X Participant Type X Sample	41.580	1	41.580	.361
Residual	19564.778	170	115.087	
Total	22027.177	180	122.373	

*p < .01

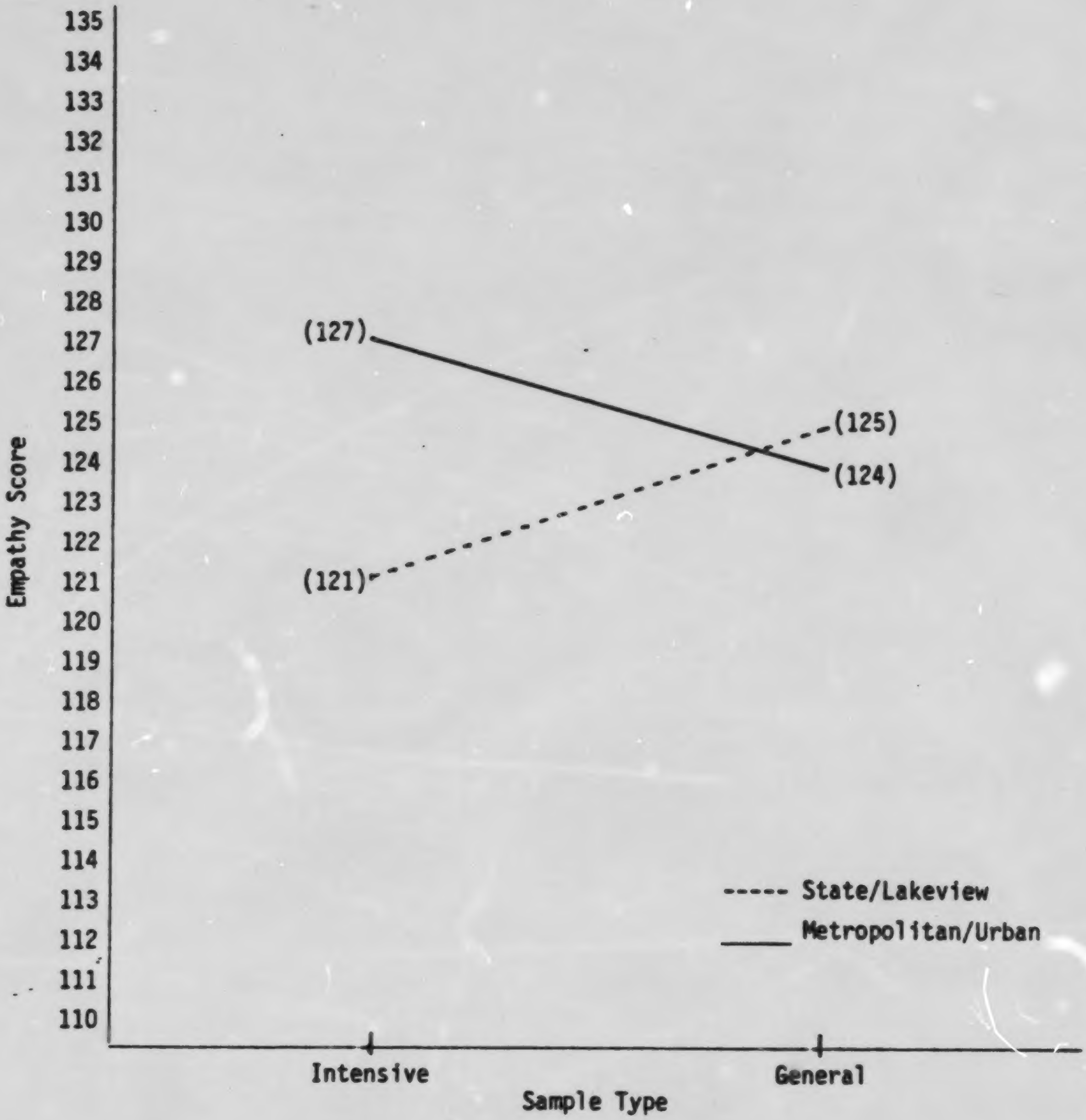

Figure 4.2 Site by Sample Interaction of Empathy Scores.

Table 4.4

Summary of ANOVA of
Empathy Scores by Site,
Participant Type, and
Sample

Source	SS	dF	MS	F
Site	55.981	1	55.981	.595
Participant Type	95.724	2	47.862	.509
Sample	15.548	1	15.548	.165
Site X Participant Type	114.681	2	57.341	.610
Site X Sample	376.868	1	376.868	4.009*
Participant Type X Sample	183.519	2	91.760	.976
Site X Participant Type X Sample	42.415	1	42.415	.451
Residual	16358.892	174	94.017	
Total	17393.059	184	94.527	

*$p < .05$

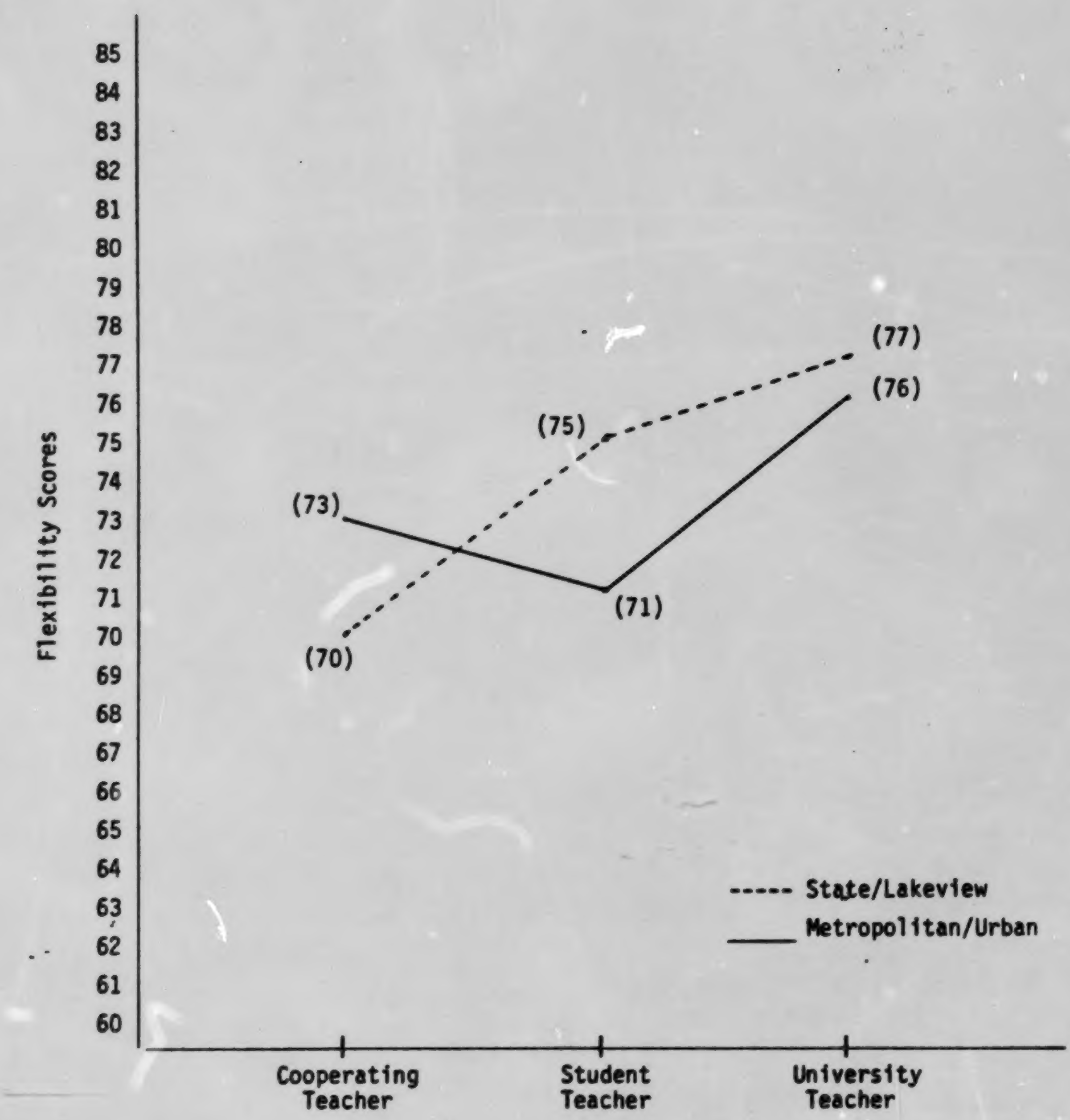

Figure 4.3 Site by Participant Type Interaction of Flexibility Scores.

Table 4.5

Summary of ANOVA of Flexibility Scores by Site, Participant Type, and Sample

Source	SS	dF	MS	F
Site	9.558	1	9.558	.093
Participant Type	339.378	2	169.689	1.656
Sample	230.396	1	230.396	2.248
Site X Participant Type	614.605	2	307.303	2.999*
Site X Sample	350.304	1	350.304	3.418
Participant Type X Sample	4.726	2	2.363	.023
Site X Participant Type X Sample	3.276	1	3.276	.032
Residual	17832.465	174	102.485	
Total	19343.768	184	105.129	

*$p < .05$

Participant differences. There were a few important differences among the student teachers, cooperating teachers and university supervisors. The differences among the concerns of the participants were generally consistent with Fuller's (1969) theory. Student teachers were much more concerned with others' perceptions of the personal adequacy on the job (Self), than were the cooperating teachers or university supervisors (Tables 4.2 and 4.6). As Fuller asserted, the beginning teacher is preoccupied with him/herself while teachers with more experience generally resolve these self concerns and are more concerned with other matters. Task concerns were the highest among the cooperating teachers (Tables 4.2 and 4.7). According to Fuller's theory this is the second level of concern that arises after the resolution of Self concerns. These concerns may also be heightened in the student teaching situation for a variety of reasons. The cooperating teacher has increased demands placed on him/herself by the student teacher and the cooperating teacher may be concerned about being able to get the basic teaching tasks accomplished either by her/himself or by the student teacher. One might also expect a heightened concern about the impact of the student teacher on the students by the cooperating teacher. Significantly, this did not appear to occur.

Aside from the site by participant type interaction of the Flexibility scores discussed above, there were few differences in the personality characteristics and attitudes of the participants. Across role groups the participants reported similarly high Self-Esteem, high Empathy, strong internal Locus of Control and progressive Educational Preference. The general results suggest that the persons entering teaching are quite similar to those already in teaching in terms of these factors. The lack of differences in Educational Preference was somewhat surprising. Other researchers (Mahan &

Table 4.6

Summary of ANOVA of
Teacher Concerns Self Subscale
by Site, Participant Type,
and Sample

Source	SS	dF	MS	F
Site	.059	1	.059	.000
Participant Type	5968.059	2	2984.030	13.914*
Sample	120.064	1	120.064	.560
Site X Participant Type	300.858	2	150.429	.701
Site X Sample	306.717	1	306.717	1.430
Participant Type X Sample	58.618	2	29.309	.137
Site X Participant Type X Sample	63.464	1	63.464	.296
Residual	40103.204	187	214.456	
Total	47076.617	197	238.968	

*$p < .01$

Table 4.7

Summary of ANOVA of
Teacher Concerns Task Subscale
by Site, Participant Type,
and Sample

Source	SS	dF	MS	F
Site	105.270	1	105.270	4.719*
Participant Type	137.683	2	68.842	3.086*
Sample	42.648	1	42.648	1.912
Site X Participant Type	2.748	2	1.374	.062
Site X Sample	16.946	1	16.946	.760
Participant Type X Sample	14.808	2	7.404	3.320
Site X Participant Type X Sample	3.837	1	3.837	.172
Residual	3859.283	173	22.308	
Total	4186.703	183	22.878	

*$p < .05$

Lacefield, 1978) have generally reported that student teachers and persons in higher education have more progressive orientations than those actually in teaching. The similarity among the views of these three role groups in this sample may have led to fewer conflicts and disagreements as these individuals worked in student teaching.

In contrast, the different cognitive abilities of the groups were especially apparent. The much lower Vocabulary scores of the student teachers were significantly lower than either those of the cooperating teachers or those of the university supervisors (Tables 4.2 and 4.8). Comparison of these scores with norms from college graduates, based on the scores of 4,495 adults attending evening classes across the country in 1962 (Borgatta & Corsini, 1964), revealed the following percentile ranks for the participants of the present study: student teachers-15th, cooperating teacher-50th, university supervisors-63rd. Even considering the general decline in various standardized achievement test scores over the last 20 years, the striking aspect of these findings is the degree of difference between student teachers on the one hand and cooperating teachers and university supervisors on the other. Considered as a measure of general intelligence, their performance on the Vocabulary measure suggests that student teachers have weaker cognitive skills than teachers already in the field. Furthermore, about 44% of student teachers reported being in the top 10% of their high school classes, while 71% of cooperating teachers and 70% of university supervisors reported being in the top of their classes. Also, university supervisors (47%) and cooperating teachers (21%) reported being members of college honorary societies whereas only 7.5% of the student teachers were in honor societies (Hughes & Hukill, Note 5).

Table 4.8

Summary of ANOVA of
Quick Word Test Scores by
Site, Participant Type,
and Sample

Source	SS	dF	MS	F
Site	80.124	1	80.124	.358
Participant Type	20285.480	2	10142.740	45.275*
Sample	455.329	1	455.329	2.032
Site X Participant Type	456.001	2	228.000	1.018
Site X Sample	216.511	1	216.511	.966
Participant Type X Sample	2.222	2	1.111	.005
Site X Participant Type X Sample	98.506	1	98.506	.440
Residual	41668.578	186	224.025	
Total	63517.685	196	324.070	

*$p < .01$

In addition to general intelligence the conceptual levels of the participants were also assessed with the Conceptual Level instrument. While the mean scores of all groups of participants were low, the university supervisors' scores were significantly higher than either the cooperating teachers' or student teachers' (Tables 4.2 and 4.9). The cooperating teachers' and student teachers' mean scores fall close together, almost exactly between a Score 1 and a Score 2, while the university supervisors' mean falls close to Score 2. At Score 1 the individual focuses on the standard or rule which defines right from wrong and conformity to it. In contrast, Score 2 denotes a transition to self-definition and more differentiated standards. Both cooperating teachers' and student teachers' means suggest that they are more categorical and less differentiated than the university supervisors as a group. The university supervisors' score mean indicates that university supervisors are probably in transition toward self definition and greater sensitivity to personal characteristics.

There were some clear differences among the types of participants, especially in regards to their concerns about teaching and their cognitive abilities. Participants, then, are most clearly distinguished by their differences in their concerns and their cognitive characteristics.

Conclusion. In examining the general differences between the sites at State University and Metropolitan University, there were relatively few differences. That is, all of the participants in each of these settings were quite similar. This, of course, does not indicate that the settings, schools, universities and programs were the same. As indicated in the RITE report on context (Defino, et al., Note 11), there were minimal differences among the sites themselves. This, however, was not reflected by the participants on most of the variables that were assessed. Additionally, there were few

Table 4.9

Summary of ANOVA of
Conceptual Level Scores by
Site, Participant Type,
and Sample

Source	SS	dF	MS	F
Site	.260	1	.260	2.286
Participant Type	2.001	2	1.000	8.809*
Sample	.111	1	.111	.977
Site X Participant Type	.009	2	.004	.039
Site X Sample	.005	1	.005	.047
Participant Type X Sample	.115	2	.057	.506
Site X Participant Type X Sample	.006	1	.006	.055
Residual	19.988	176	.114	
Total	22.510	186	.121	

*$p < .01$

differences between the general and intensive samples. This indicates that these individuals were generally similar.

While there were several differences between the three types of participants, the most dramatic difference was the weaker cognitive abilities of the student teachers vis-a-vis their cooperating teachers and university supervisors. Other researchers have reported that teachers entering the field are less capable academically and these results tend to confirm this finding. Both university supervisors and cooperating teachers had clearly superior vocabulary skills and by inference, general intelligence, over the student teachers. In a profession that depends on persons with general intelligence and with differentiated and integrated interpersonal concepts, these findings raise serious questions about the emerging teaching force.

Participant Change During Student Teaching

Many theorists and investigators of student teaching have suggested that student teachers change during the time they practice teaching. It also has been hypothesized by the current investigators that cooperating teachers and perhaps even university supervisors may change over the course of student teaching. To assess change in each of these groups, participants were tested on six of the instruments at the beginning, middle, and end of the semester. They were tested on the Conceptual Level instrument only at the beginning and end of the semester. A series of repeated measures analyses were conducted separately for each participant group (university supervisors, cooperating teachers, and student teachers) on each of the dependent variables. For repeated measures' means and standard deviations see Tables 4.10-4.14.

The results indicated that each of the participants (university supervisors, cooperating teachers, and student teachers) experienced some change over the course of student teaching on a few variables. As might be

Table 4.10

Means and Standard Deviations of the Repeated Measures of Empathy and Locus of Control by Participant Type

Construct	Administrations					
	Beginning-of-Semester		Mid-Semester		End-of-Semester	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Empathy						
University Supervisor	125.24	8.91	126.00	10.33	125.77	13.37
Cooperating Teacher	124.09	11.30	123.49	12.82	124.00	12.10
Student Teacher	124.72	11.10	124.08	11.38	125.17	10.81
Locus of Control						
University Supervisor	34.24	3.88	35.65	3.24	36.25	3.99
Cooperating Teacher	33.49	4.09	33.56	4.58	34.00	4.99
Student Teacher	34.09	4.31	34.26	5.03	33.68	5.68

Table 4.11

Means and Standard Deviations of the Repeated Measures of Flexibility and Educational Preference by Participant Type

Construct	Administrations					
	Beginning-of-Semester		Mid-Semester		End-of-Semester	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Flexibility						
University Supervisor	76.47	9.49	75.65	9.16	77.18	4.92
Cooperating Teacher	70.55	10.31	71.90	11.79	72.65	12.29
Student Teacher	71.45	11.10	73.66	11.36	73.58	12.05
Educational Preference						
University Supervisor	106.56	14.36	103.71	14.03	105.24	16.78
Cooperating Teacher	100.99	11.30	98.57	10.66	97.78	12.25
Student Teacher	100.98	13.03	99.03	12.49	98.41	12.44

Table 4.12

Means and Standard Deviations of the Repeated Measures of Teacher Concerns Checklist Self and Task Factors by Participant Type

Construct	Administrations					
	Beginning-of-Semester		Mid-Semester		End-of-Semester	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
TCC Self						
University Supervisor	51.06	12.63	55.29	14.50	48.71	12.42
Cooperating Teacher	56.17	15.68	56.71	14.87	54.61	15.15
Student Teacher	70.24	12.67	67.60	13.05	66.19	15.30
TCC Task						
University Supervisor	18.88	6.22	19.47	6.20	18.35	4.14
Cooperating Teacher	21.34	5.26	21.65	4.75	20.93	5.55
Student Teacher	19.82	5.62	19.87	5.51	19.94	5.72

Table 4.13

Means and Standard Deviations of the Repeated Measures of Teacher Concerns Checklist Impact Factor and Self-Esteem by Participant Type

Construct	Administrations					
	Beginning-of-Semester		Mid-Semester		End-of-Semester	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
TCC Impact						
University Supervisor	108.71	15.12	108.88	14.90	101.12	17.30
Cooperating Teacher	107.17	21.65	107.44	19.57	104.64	21.23
Student Teacher	113.26	20.64	109.95	20.47	110.01	22.31
Self-Esteem						
University Supervisor	121.82	11.56	122.41	9.57	124.24	10.12
Cooperating Teacher	124.36	10.35	123.96	11.24	123.98	10.27
Student Teacher	123.26	10.48	125.27	9.94	126.43	9.22

Table 4.14

Means and Standard Deviations of the Repested Measures of Conceptual Level by Participant Type

Construct	Administrations					
	Beginning-of-Semester		Mid-Semester		End-of-Semester	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Conceptual Level						
University Supervisor	1.82	.57	*	*	1.81	.43
Cooperating Teacher	1.48	.43	*	*	1.46	.37
Student Teacher	1.44	.35	*	*	1.41	.34

*Not administered.

expected the student teachers showed the most change, followed by the cooperating teachers, and then, the university supervisors. All groups experienced some change in terms of their concerns; however, the changes showed a decrease in concerns. Counter to Concerns Theory (Fuller, 1969), there was no evidence to suggest that Task or Impact concerns increased. Perhaps this was too short a period of time to find evidence of this type of change; however, the trends were all towards decreasing concerns in all areas. Student teachers' Self concerns decreased (Tables 4.12, 4.15) and both Self and Impact concerns declined for university supervisors (Tables 4.12, 4.13, 4.16, 4.17). These findings may suggest a revision of the Concerns Theory: i.e., all types of concerns may decrease with experience. Also, these changes represent an important adjustment to the situation indicating that student teachers acquire more confidence in themselves and cooperating teachers become more confident of their own ability to manage the daily teaching tasks and frustrations. Both of these conditions probably represent important qualities of a successful or an effective student teaching experience. Further exploration should be undertaken to identify which factors lead to these types of outcomes.

Other interesting changes were the parallel effects noted in student teachers and cooperating teachers in regards to Flexibility and Educational Preference (Tables 4.1', 4.18-4.21). During the semester Flexibility increased while the Educational Preference of these individuals became more conservative. While these may seem contradictory, these changes may reflect both the cooperating and student teachers' adjustment to the practical life of the school day in which one must meet the many demands that occur and yet attempt to maintain educational priorities. Yet, it is unclear why even cooperating teachers with many years of experience would still show these same

Table 4.15

Summary of Repeated Measures ANOVA of Student Teachers' Self Concerns

Source	SS	df	MS	F
Main Effects	546.198	2	273.099	4.459*
Residual	10167.135	166	61.248	

* *p* < .05

Table 4.16

Summary of Repeated Measures ANOVA of University Supervisors' Self Concerns

Source	SS	df	MS	F
Main Effects	378.980	2	189.490	4.942*
Residual	1227.020	32	38.344	

* $p < .05$

Table 4.17

Summary of Repeated Measures ANOVA of University Supervisors' Impact Concerns

Source	SS	df	MS	F
Main Effects	668.118	2	334.059	3.720*
Residual	2873.882	32	89.809	

* $p < .05$

Table 4.18

Summary of Repeated Measures ANOVA of Student Teachers' Flexibility Scores

Source	SS	df	MS	F
Main Effects	359.184	2	179.592	5.628*
Residual	5360.816	168	31.910	

* $p < .01$

Table 4.19

Summary of Repeated Measures ANOVA
of Cooperating Teachers' Flexibility Scores

Source	SS	df	MS	F
Main Effects	213.117	2	106.558	4.386*
Residual	3984.884	164	24.298	

* $p < .05$

Table 4.20

Summary of Repeated Measures ANOVA of Student Teachers' Educational Preference Scores

Source	SS	df	MS	F
Main Effects	334.370	2	167.185	2.945*
Residual	9309.631	164	56.766	

* p = .05

Table 4.21

Summary of Repeated Measures ANOVA of Cooperating Teachers' Educational Preference Scores

Source	SS	df	MS	F
Main Effects	392.951	2	196.476	5.397*
Residual	5897.715	162	36.406	

* $p < .01$

changes. Apparently, some aspect of the school or teaching experience has similar effects on both student teachers and cooperating teachers.

In general, these findings provide a broad picture of the types of changes experienced by all members of the student teaching triad. While the student teachers' changes were consistent with past research, there is little evidence about whether those of the cooperating teachers and university supervisors are similar or different to what other cooperating teachers or university supervisors experience. According to these data, all individuals, even cooperating teachers and university supervisors, evidenced some change during the semester. While student teachers showed the most change, these findings emphasize the need to consider not just the impact of student teaching on the student teacher, but also the impact on the other members of the triad. Much work is needed on the effects of this experience on the cooperating teacher and university supervisor.

Profiles of the Average Student Teacher, Cooperating Teacher, and University Supervisor

The following profiles are based on an examination of the means of the personality, attitude, cognitive, and professional measures discussed above (Table 4.2).

Student teacher. Student teachers on the average reported an ability to provide role-appropriate affective interaction to their students. While they believed in their own initiative and control in most matters, they were not extremely individualistic. Nor did they report more than a moderate ability to adapt to and tolerate change in social, interpersonal settings, even though this sort of flexibility was positively related to their performance ratings. They reported a generally positive level of self-esteem, suggesting that they perceived themselves as effective managers with some opportunities to exercise their authority. This furthermore implied that they perceived their evaluations by others as generally positive. With regard to educational philosophy, the student teachers appeared to be either split or undecided between traditional and progressive orientations. They seemed only moderately concerned with their status at school and with their influence over their students. They reported relatively little concern with the frustrations and stresses often associated with the day-to-day tasks of teaching. Perhaps these patterns of concern realistically reflect their circumscribed role as student teachers. In terms of interpersonal concepts the student teachers reported categorical, rule-bound approaches to their interpersonal relationships. They exhibited a normal degree of field independence. However, in one of the more troubling findings of the study, the student teachers evidenced relatively low levels of general intelligence.

Cooperating teacher. With a few exceptions the profile of the cooperating teacher appeared to be very similar to that of the student teacher. On the average, however, cooperating teachers reported fewer status concerns at school than student teachers. This finding was not surprising since one would expect the more experienced teachers to have a more secure concept of their role and status in the society of the school than their neophyte counterparts. Also, as one might expect, cooperating teachers appeared to have somewhat greater concern with the day-to-day tasks of teaching and the frustrations and stresses associated with them. Finally, cooperating teachers evinced a much higher level of general intelligence than student teachers. That is, they appeared to be of average intelligence. It is unclear what underlay the disparity between cooperating teachers and student teachers on this dimension, yet it clearly warrants further investigation. Aside from these differences, cooperating teachers and student teachers appeared to be similar on the other characteristics measured in this study.

University supervisor. In general the university supervisors exhibited a somewhat greater degree of each characteristic measured than either the cooperating teachers or the student teachers. One would have certainly expected some differences, given the differences in roles, work environment, and professional preparation between the university supervisors and the two groups of teachers. In most instances, however, the differences were fairly small. The university supervisors appeared to be more complex and less rule-bound in their formulation of interpersonal concepts. This would imply more interpersonal tolerance. The university supervisors appeared to share with the cooperating teachers a fairly secure understanding of their role status and, thus, are not even moderately concerned with it, in contradistinction to the student teachers. This similarity to cooperating teachers and difference from student teachers was paralleled in the university supervisors' level of general intelligence which was somewhat above average. In addition they also appeared to be somewhat more independent and tolerant of social variation than either of the groups of teachers. Furthermore, it appeared that the university supervisors were slightly more progressive in their educational philosophy. Finally, they seemed to have a higher level of self-esteem. These differences, to the extent that they were real, might be attributed to the liberalizing context of the university where most supervisors work at least part of the time, and the relatively less contact that they have with the actual public school work place. Certainly, though, more investigation is needed to substantiate the possible contribution of these context variables as well as other background variables.

CHAPTER 5

THE CONTEXT OF CLINICAL PRESERVICE TEACHER EDUCATION

One goal for the Clinical Teacher Education--Preservice study was to describe in detail the student teaching experience at two sites, in terms of the characteristics, behaviors, and interactions of cooperating teachers, student teachers, and university supervisors of student teachers within their institutional contexts. The present chapter addresses the last named area of emphasis, the broad institutional contexts of student teaching. Many of the more formal and/or quantitative characteristics of the participating universities and public schools (e.g., class size, number of faculty in Colleges of Education) are described in Chapter 3. The foci here will be (1) the broader contexts of the public schools, such as school neighborhood demographics, the schools' qualitative description, and the possible relation of these to certain quantitative measures; (2) formal organizational properties of the universities which specifically impact the student teaching programs; and, (3) the informal organizational properties which impact the programs and their participants, as identified through qualitative (primarily interview) data.

Characteristics of Participating Schools and their Populations

The RITE staff collected information about several aspects of the participating schools' composition. The information included the availability of bilingual education, busing, demographics of the school neighborhoods, school building age, parental involvement, and so on. It was not always possible to gather information about all aspects of composition from all schools, and in some cases data represent only one of the two study sites (this will be drawn to the reader's attention whenever appropriate).

Bilingual Education

As one would anticipate, districts such as Urban which have high frequencies of students learning English as a second language (see Table 3.3 in Chapter 3) provide or develop formal mechanisms and resources for dealing with them. Among the most easily documented and most common are bilingual education programs designed to serve particular schools or grade levels. In the Urban district, 80% of the schools in the sample offered bilingual education programs in Spanish-English, Chinese-English, Japanese-English, and so on in grades K-9 (different grades and languages in the various schools). Among the participating Lakeview schools, 62% offered Spanish-English bilingual programs in grades 1-5 (again, different grades in the various schools). At both sites, unless a program is available, teachers seem to deal with bilingual children on an individual basis (often relying upon peer tutoring).

Busing

A second broad contextual factor which has the potential to influence the student teaching experience pertains to whether or not students ride buses to school. About 12% of the students in the participating Urban schools are bused to school each day. All of the busing in this district is voluntary. In marked contrast is the 34% of participating Lakeview students who are bused each day. Roughly 80% of them (or 27% of the total number of students in the participating schools) are subject to a compulsory busing program. The existence of such a busing program may be responsible for the variety of grade level compositions observed in Lakeview schools (described in Chapter 3).

School Neighborhood Characteristics

The similarity of pupil SES across the sites (see Chapter 3) contrasts with the dissimilar SES of the school neighborhoods at each site. Only four of the ten Urban schools were described by principals as being in middle SES neighborhoods. Three were said to be in low SES neighborhoods. Two were said to be in "mixed" SES neighborhoods, one of these in a 50-50 middle and lower SES neighborhood, and the other in a one-third upper, one-third middle, and one-third lower SES neighborhood. Conversely, two school neighborhoods at the Lakeview site were described as being "Upper middle SES" by the building principals. Eleven of the remaining 14 Lakeview district schools were described as being in middle income neighborhoods and the remaining three were described by the principals as being in low SES neighborhoods. Thus, speaking in terms of proportions, more Urban than Lakeview sample schools tended to be in low SES neighborhoods (30% versus 21%).

Additional Context Variables

Information on certain other contextual variables was collected only from the Urban schools; the Lakeview central administration did not have records which provided the information specifically about each of the 16 campuses, and contacting each of the sixteen principals to obtain these details was not feasible for the RITE staff. The variables included were parental involvement in the schools, the numbers and types of special programs and assistance available, and lists of unique features about the schools volunteered by building principals.

Parent attitudes. The interest and attitudes of parents and the immediate community around a school may influence the context to a significant degree. Four of the ten participating Urban school principals mentioned parents and/or community as part of the unique characteristics of their schools. Whenever parents or community were mentioned, they were described in a favorable or positive light: "interested parents," "[we are] truly a community school, stable staff and community," "parent cooperation," and "excellent attitude--parents, children and staff." Coincidentally, none of these schools were in strictly low SES neighborhoods. Whether or not this link is in any way causal is impossible to determine (e.g., this could reflect the administrators' attitudes more than an apparent lack of parental interest in or support for the schools in low SES neighborhoods); but the association existed.

Special assistance. The special programs, financial and program assistance, and special personnel available to a school or school district may influence the educational context in which student teaching takes place as well. The Urban schools reported a relatively wide variety of special financial assistance, special programs and personnel. For example, eight of the 10 mentioned School Improvement funds or program assistance. Eight had special programs for educating gifted children, and two of these received extra financial assistance for maintaining gifted programs. Nine mentioned bilingual education as contributing either financial or programmatic assistance to their schools. Three of the ten received Title I funds. Numerous other individual sources of support were mentioned by the principals (financial assistance - eight schools; program assistance - eight schools; special personnel - seven schools; special programs - all ten).

While some may regard this extensive listing of supports as a positive contextual aspect, it may not be without some cost to the individuals in the Urban schools. For example, the amount of paperwork involved in the conduct and administration of these programs adds substantially to the teachers' regular workload. The loss of instructional time devoted to the regular curriculum which results from any "pull-out" programs compresses the teachers' work as well as the students'. Thus, there may be trade-offs that diminish progress in the core content areas for progress in these more specialized programs.

Unique features of schools. Among the last contextual aspects of the Urban schools that were investigated were "unique" characteristics of the schools, as volunteered by the principals in response to an open-ended question. Nine of the ten principals generated responses to the question. In addition to the theme of positive parental or community relations mentioned by four school principals were idiosyncratic bits of information describing excellent attitudes, dedication, professionalism, and unusual school sizes, calendars, or populations.

Perceptions of Context by Student Teaching Participants

All of the above context information--especially that which indicates differences across the two sites--may be related logically to teacher, student teacher, and university supervisor perceptions of work life. Study participants responded to the Teacher Work-Life Inventory (TWLI; Blumberg & Kleinke, Note 8) so that a quantitative picture of these perceptions was obtained. Teachers rated the inventory items on a four-point scale, from "this feature stands out very sharply in my work-life," to "this feature does not stand out at all in my work-life." The findings (presented in detail in Defino, et al., Note 11) will be reviewed briefly.

First, general sample student teachers at both sites reported similar levels of Executive Responsibility in their work lives. Intensive sample student teachers at Urban reported that Executive Responsibilities stood out more sharply than they did for student teachers at Lakeview. Intensive and general sample cooperating teachers at Lakeview rated Executive Responsibilities as a more prominent part of their work lives than intensive and general sample cooperating teachers at Urban (although the intensive sample showed the most contrast). Also, intensive sample university supervisors at State University reported that Executive Responsibilities stood out more sharply in their work lives than did intensive sample university supervisors at Metropolitan University.

Second, general sample supervisors rated themselves as being less subject to Institutional Constraints than did intensive sample university supervisors. Intensive sample student teachers reported less sense of constraint than did the cooperating teachers, the intensive sample supervisors, or general sample student teachers.

Third, no significant differences across sites or participants were observed in the reporting of how sharply Professional Rewards stood out in their work lives. On the average, the participants indicated that professional rewards stood out "a little sharply."

Fourth, student teachers reported that School Norms stood out more sharply in their work lives than they did for cooperating teachers or university supervisors. This was true for participants at both sites, and in both samples. Probably this reflects that the cooperating teachers and university supervisors are simply more accustomed to the norms than the student teachers. The norms would, of course, be less salient for cooperating teachers and university supervisors than the student teachers if this were the case.

Fifth, general sample triads reported that various sources of Dissatisfaction stood out more sharply in their work lives than they did for the triads in the intensive sample. Several explanations for this result were offered, not the least of which pointed to the nature of intensive participation (e.g., increased reflection associated with increased appreciation, as a function of having to write about one's work at least twice weekly).

Student teachers' satisfaction and expectations were assessed with two scales developed by RITE staff (see Hughes & Hukill, Note 5). Results for these have been reported elsewhere (Defino, et al., 11) but will be reviewed briefly here.

High scores on the Student Teaching Satisfaction scale are presumed to reflect high levels of satisfaction. Out of a possible total of 110 points, the mean score for all student teachers was 90.7 points. No differences were observed across sites or samples. Thus, it seems reasonable to suggest that the student teachers were generally satisfied with their experiences, regardless of personal or organizational contexts. However, this was in marked contrast to the very mixed impressions which cooperating teachers gave of their own student teaching. This apparent discrepancy led to the formulation of several questions. First, have teacher education programs, and specifically clinical preservice experiences, improved substantially over time (was the difference real)? Or was the difference reflective of the two methods used to collect the data (a rating scale and an open-ended interview question)? Third, were participating student teachers relatively naive consumers of the preservice clinical experience, such that placement experiences had not improved, but student teacher awareness of placement inadequacies would be minimal until after full-time teaching had begun? All of these were thought to be legitimate questions for future research.

Additional findings resulted from the Student Teaching Expectations scale. First, the intensive sample student teachers reported actual enjoyment of the experience to be more closely matched to their prior expectations than the general sample; the latter group reported that they had liked student teaching more than they had expected. Second, general sample student teachers reported greater disparity between their expectations and their appraisal of how well they had performed in the classroom than the intensive sample did. General sample student teachers felt that their performances definitely exceeded their expectations. Third, in both samples student teachers tended to feel that the various aspects of student teaching (grading, preparation, instruction, and so on) took somewhat more time than they had anticipated it would. Fourth, student teachers from Metropolitan felt their prior education courses were generally more valuable than did the student teachers from State University.

Finally, most but not all of the student teachers in the RITE sample were determined to continue with their career choice (e.g., they expected to be teachers-in-service the next year). There was no way to determine how many had become teachers at the time of writing this report. That remains a question for future research.

Summary

Findings pertaining to several broad contextual factors which probably influence the actual and perceived worklives of cooperating teachers, student teachers, and university supervisors were reported in this section. First, the percentage of participating schools at each site providing bilingual education to students was presented; Urban had a higher percentage than Lakeview. Second, the percentage of school children at each site who were bused to school was presented. Lakeview had more than twice as great a percentage of bused students as Urban, and over one-quarter of the Lakeview children were in a compulsory busing program. Third, a somewhat greater percentage of Urban than Lakeview schools were described as being in low SES neighborhoods. Additional information about the Urban schools included qualitative descriptions of parental involvement and the varieties of program and financial assistance available.

Findings pertaining to the quantitative assessment of the cooperating teachers' and student teachers' perceptions of worklife were reported. Information about their impressions of executive responsibility, institutional constraints, professional rewards, school norms, and job dissatisfaction was presented in relation to various contextual factors such as professional experience or the nature of intensive participation in the CTE-P study. Results from the Student Teaching Satisfaction and Expectations scales were similarly reviewed. Given this perspective on the broad contextual factors which can influence the student teaching experience, some of the formal and informal organizational properties which help to structure it will be considered next.

Formal Organizational Properties of the Two Participating Universities

University rules and regulations which impact student teaching were examined in their published forms. First are those rules directly governing the student teacher programs. Second are those which determine how participants in the student teaching experience are selected and how their roles are defined. Because the roles of each participant in the student teaching experience were addressed in an earlier chapter of this report, only those rules and regulations governing the student teaching programs will be covered in this chapter. The following topics will be discussed in terms of the two universities participating in the RITE study: (1) requirements for admission to the teacher education program; (2) placement of student teachers; (3) student teaching requirements; (4) certification and/or credentialing; (5) grievance procedures; and, (6) placement services.

Requirements for Admission to the Teacher Education Programs

State University. State University lists the requirements for admission to its teacher training program in a university-published book entitled Teacher Education: A Student Handbook (Note 13). The handbook states that students wishing to enter the program must (1) have junior standing, which requires 54 hours of completed college work, (2) have an overall grade point average (GPA) of 2.25, (3) demonstrate adequate speech, and (4) have their vision and hearing tested. Once these requirements are met, the student is admitted to the program and may begin to undertake teacher education coursework.

To apply for student teaching at the elementary level individuals must have earned an overall GPA of 2.35. Those in the secondary teacher education sequence must have either an overall GPA of 2.50 in both of their chosen "teaching fields" (e.g., the subject matter they intend to teach), or a 2.65 in one and a 2.25 in the other. All students must have senior standing. In addition those pursuing a credential must have either a minimum of six advanced hours at State University in each of their teaching fields, or nine advanced hours in their composite field (i.e., a combined major).

Metropolitan University. Information regarding education degree requirements is listed in the Bulletin of the Metropolitan University School of Education (14). To be eligible to student teach at either the elementary or secondary level, students must have completed two specified education courses; have senior standing; have a 2.20 GPA over all courses; and be enrolled in an approved degree program prior to commencing student teaching.

Given that the university students have met all of their respective institutional requirements for entering student teaching, the tasks of locating and arranging appropriate placements for them assume prominence. The next section will address the complexities of the placement process, as it is pivotal to determining the personal context in which student teaching occurs.

The Placement of Student Teachers

State University. Information on the placing of student teachers is found in the Handbook for University Student Teaching Supervisors (Note 15). It indicates that the placement of student teachers in secondary schools is handled by coordinators (who are university faculty members) in the different subject areas. Occasionally supervisors, typically lower in the organizational hierarchy than coordinators, are called upon to help with the task of placement.

At the elementary level, the Director of Field Experiences makes tentative assignments of student teachers to cooperating teachers. The university supervisors then take their placement lists to the schools in which they will be working for the principal's final approval. At both the secondary and elementary levels, any administrator or teacher who has responsibility for the classroom to which the student teacher is assigned may terminate his/her assignment in that classroom at any time and for any reason. They need not show cause or allow for a review.

Metropolitan University. The placement of student teachers for Metropolitan University is discussed in Teacher Education Guidelines (Note 16), a handbook published by the Urban Unified School District. The university supervisor is primarily responsible for the placement of student teachers. Each supervisor is assigned to a selected number of schools that are consistently used as student teaching sites. He or she then works through those schools to aid student teachers by providing the types of assignments that will assist them in developing the skills necessary for success.

Discussion of placement regulations. State University has a centralized placement process which is basically affirmed or modified by those most directly involved in and responsible for student teaching (supervisor, principal, student teacher, and cooperating teacher), whereas Metropolitan's supervisors are expected to manage student teacher placements in toto. Once student teaching placements are established, the novitiates have yet another set of requirements which must be met prior to certification. These are discussed next.

Student Teaching Requirements

State University. The general requirements for the completion of student teaching at both the secondary and elementary level are delineated in the university bulletin, Handbook for Student Teachers (Note 17) as follows (paraphrased here for brevity). Student teachers are to:

1. Recognize that the cooperating teachers have ultimate responsibility for what student teachers do or do not do in the classroom.
2. Know and follow the rules, regulations and policies of the school.
3. Maintain an ethical and professional attitude toward all members of the school community.
4. Make themselves available for regular planning and feedback sessions.
5. Make adequate plans of teaching assignments; share copies with the cooperating teacher and university supervisor.
6. Regularly attend student teaching and related seminars.
7. Continuously assess their growth as teachers.
8. Assume responsibility for making effective contributions to the ongoing curriculum.
9. Open a placement file in the Education Placement Center.

In addition, student teacher's performance will be evaluated by their cooperating teachers and university supervisors. The handbook states that:

> A copy of the student teaching evaluation form is given to student teachers at the start of the semester. This form is completed by both the university supervisor and cooperating teacher at the end of the semester and placed in the student teacher's file in the Education Placement Center. The student teacher is advised to become familiar with this form and seek feedback from the supervisor throughout the semester with respect to the categories included (p. 55).

At the end of the semester the student teacher is entitled to see these assessment forms. He/she is required to sign them as evidence of their having been seen.

Metropolitan University. Metropolitan University makes available a publication delineating the responsibilities of those individuals involved in the student teaching program. The Basic Elementary Orientation Bulletin (Note 18) is published by the teacher education department and stipulates the following requirements (paraphrased for brevity).

1. Three section lesson plan folders are required. Each of these should include statements of objectives, materials needed, instructional procedures, and student teacher evaluations of the success of each lesson. Weekly and long range plans are to be developed for each subject area; daily plans are submitted a day in advance. Plans are mandatory for any teaching to be conducted by the student teachers.
2. All student teachers begin each subject block with detailed lesson plans, although simplified lesson plan forms should be used after the third week of successful detailed planning and teaching.

3. Specific times for weekly conferences should be arranged.
4. Absences, except those allowed by the university, will be made up.
5. Student teachers are given competency task sheets to examine prior to teaching each subject. They are to check off appropriate items for the grade level and secure the cooperating teacher's approval and initials.
6. Art should be taught throughout the semester in order to develop a sequential program.
7. Some playground supervision is required.
8. Lesson plans for all-day teaching are to be submitted for approval two days in advance.

Information specific to those student teaching at the secondary level was unavailable. In any event, once the student teachers have successfully followed the guidelines and requirements furnished through their respective institutions' handbooks, they may be presumed ready for the certification and/or credentialing process. These will be examined, as they affect candidates from each university, in the next section.

Certification and/or Credentialing

State University. In Teacher Education: A Student Handbook (Note 13) student teachers are advised about obtaining a certificate in the following way (paraphrased).

1. Student teachers must apply for their teaching certificates; no certificate is automatically granted with a degree. They are to apply in the Certification office by mid-term.
2. National Teacher Examinations (NTE). Some school districts require

scores on the NTE. Student teachers have the option of obtaining information and the application form at the Measurement and Evaluation Center on the State University Campus.

3. Student teachers must complete all degree and certification requirements.

State University therefore does not automatically grant the recipient of a degree in Education a State teaching certificate. Application is made to the State by individuals. The university does, however, provide an office on campus whereby students may submit an application for certification.

Metropolitan University. Like State University, Metropolitan University does not automatically grant their candidates in teacher education an official certificate (or "credential" as it is known in that state). Students are instead advised to complete an application at the opening of the semester in which all requirements toward the teaching credential will be completed. Metropolitan provides a "credential technician" on campus to serve students. The specific requirements (pertaining to coursework, GPA, etc.) for teaching credentials are outlined in the Bulletin of Metropolitan University School of Education (Note 14).

If the student has chosen to complete a four-year academic program at Metropolitan University a "Preliminary Credential" is issued by the state. The Preliminary Credential is good for five years. A fifth year of postgraduate work (i.e., 28 units of graduate level coursework) is required if the student wants to obtain a "Clear Credential." Clear Credentials are issued by the state upon completion of all requirements and the fifth year of coursework.

Discussion of credentialing requirements. At State University, once a student teacher obtains certification, he/she is apparently certified unconditionally. No stipulations about future advancement (e.g., through additional coursework) are made; this is reflective of the offering of only a four-year program, unlike Metropolitan's four- and five-year programs.

In any case, while most teacher education students are able to proceed through their professional sequences and field work without encountering major difficulties, there are a few who have problems. Each of the sites participating in this study has made provisions for voicing complaints through some manner of grievance system. These will be discussed in the following section.

Grievances

State University. State University's grievance procedures are found in their published handbooks for cooperating teachers, student teachers and university supervisors. The cooperating teacher is advised in his/her handbook to direct most questions to the university supervisor. If the supervisor is unavailable, or unable to be of assistance, teachers are asked to call the Director of Student Field Experiences at the University. Cooperating teachers are also asked to direct suggestions for improvement of the teacher training program to the Director of Field Experiences or to the Associate Dean for Undergraduate Education.

In addition, if it becomes apparent to the cooperating teacher and the university supervisor during the course of a semester that a student teacher will not be able to progress in the development of his/her teaching skills in the time allotted for student teaching, the student teacher must be notified as soon as possible. He/she will be asked to drop the course during the last class week and re-register in a subsequent semester. Only if the university supervisor and the cooperating teacher are both of the opinion that the student teacher lacks the ability to ever develop minimum competency as a teacher will he/she be failed in the course.

If university supervisors need information or advice regarding the guidance of student teachers, they are advised in the supervisor's handbook to contact the coordinator of student teaching. If the failure or dropping of a student teacher is necessary they are to follow the aforementioned advice given to the cooperating teacher. Any comments or suggestions regarding the Handbook for University Student Teaching Supervisors (Note 15) are asked to be directed to the Office of Student Field Experiences.

Student teachers are also given information on grievance procedures in the Handbook for Student Teachers (Note 17). If the student teacher feels his/her university supervisor or cooperating teacher is not fulfilling his/her responsibilities, the student teacher is asked to contact the Director of Student Field Experiences at State University.

Metropolitan University. Grievance policies with regard to inadequate performance of a student teacher are listed in Teacher Education Guidelines (Note 16), a publication provided by the Urban Unified School District. In the section entitled "Suggestions for Counseling Student Teachers with Serious Instructional Problems," the cooperating teacher is asked to discuss all problems concerning student teacher inadequacies with the student teacher and a representative from the university as soon as they are detected. If the student teacher's performance is so poor that the instruction of students is jeopardized, then the cooperating teacher may refuse to permit the student teacher to continue training at that school. In addition, cooperating teachers are advised to use the regularly scheduled conferences to help solve crisis situations. No recommendations for grievance procedures are stipulated for the student teacher or the university supervisor.

Student teachers must also contend with the inevitable task of locating full-time employment in their chosen field, upon completion of degree and certification requirements. To assist in this process, both of the participating universities offer a variety of placement services to their students. These will be reviewed next.

Placement Services

State University. The university-published book entitled Teacher Education: A Student Handbook (Note 13) discusses the career placement services available upon completion of student teaching. This handbook states that all student teachers are required to establish a file in the Education Placement Office at the beginning of their student teaching semester. The office provides students with information about teaching jobs as well as other positions available in the field of education. In addition, interview sessions with prospective employers are arranged through the placement center.

Metropolitan University. The job placement procedures offered through Metropolitan University are delineated in the Bulletin of the Metropolitan University School of Education (Note 14). This bulletin states that the Office of Educational Placement serves two functions: (1) career counseling and assistance to students and alumni in securing professional employment; and, (2) services for graduate students related to admission to graduate programs. Students are encouraged but not required to come to the placement office early in their search. The office provides assistance in career placement as well as advisement on career advancement opportunities.

Summary

This section discussed those rules and regulations governing the student teaching programs at State University and Metropolitan University. Requirements for admission to each of the teacher education programs and to student teaching, the placement of student teachers, student teaching requirements, certification and/or credentialing, grievance procedures and placement procedures were discussed.

Informal Organizational Properties of Universities

While formal guidelines are established to govern student teaching, the informal, day-to-day interactions among the participants within their particular settings must be examined to acquire a more accurate description of student teaching. The informal processes of the university related to placement of student teachers will be discussed first in this section followed by a description of those informal processes related specifically to the university supervisors.

Informal Organizational Properties Related to Student Teachers

At the two sites involved in this study, formal procedures were extant for selection of cooperating teachers. Those procedures were more extensive in the Urban School District where potential cooperating teachers (often after being recruited by a university supervisor) prepared a sample lesson for the selection committee, met with the selection committee, and obtained the building principal's recommendation. Candidates for the role of cooperating teacher in the Lakeview School District usually volunteered and secured approval from the building principal before being considered by the university. Nearly one-half of the cooperating teachers reported informal recruitment practice which was inconsistent with the formal guidelines.

Assignment of student teachers to particular cooperating teachers also varied widely in practice, from supervisors and principals jointly deciding placement at one school in Lakeview to the university supervisors at Urban School District deciding placements as a group. The major difference between the sites was extensive knowledge of student teacher backgrounds and preferences by the Urban/Metropolitan University supervisors. As a group these supervisors seemed to be more able to proactively influence the experiences of the student teachers since they both provided other preservice training prior to student teaching and rotated student teachers with other supervisors for the second semester of student teaching. For the second semester of student teaching, Metropolitan university supervisors often placed student teachers with specific cooperating teachers or in particular classroom environments to provide as varied an experience as possible.

Informal Organizational Properties of the Universities Relating to the University Supervisor

Several informal processes may influence the manner in which university supervisors enter, organize, and carry out their roles. These processes include selection requirements and training for university supervisors, orientation of the university supervisors to their role, their responsibilities during student teaching, and the support and reward systems that relate to that job.

Selection requirements and training. Despite the existence of formal requirements and guidelines for use in selecting university supervisors, university supervisors indicated a wide variety of experiences and preparation. Training ranged from none to classroom teaching to university level training in supervision. Deciding to become a university supervisor at State often depended upon relatively mundane considerations. These considerations at State ranged from the need for financial aid for graduate students to the desire for a flexible working day to the requirement to fill the faculty workload. On the other hand, the supervisors at Metropolitan University saw supervising as a way to contribute to their profession and work with adult learners. They were often recognized as "master teachers" themselves before being recommended, screened, and tested for the university supervisor position.

Orientation to the role of university supervisor. In practice the responsibilities of the university supervisors were much more extensive than a reading of formal guidelines would imply. While the supervisors recognized the importance of their administrative functions, they tended to emphasize the human, personal aspects of the role. University supervisors most often became aware of their role and responsibilities through informal sources including support systems formed by association with other supervisors. They often formed idiosyncratic priorities based on their previous experience as a student teacher or "what I've arrived at myself." They described their role as (1) serving as a middle person, mediator, or liaison between the public schools and the university, (2) providing clear expectations, objective descriptions, and both informal and formal evaluations of student teachers' performances, while also (3) giving psychological support for those same student teachers. They assumed the responsibility of offering suggestions or communicating requirements (both their own and those of the university) to structure the activities and experiences of the student teachers, attempting simultaneously to maintain a positive environment for all concerned. A breakdown in communication between and among all participants--even those more remotely concerned with the day-to-day activities like principals or parents of classroom students--was considered a major problem and a negative reflection on the skills of the university supervisor. For this reason the supervisors indicated that making themselves available either in person or by telephone at all times, and having cooperating teachers, student teachers, and principals aware of this availability were extremely important.

Student teaching responsibilities. Another area where the informal processes of the universities influenced the student teaching experience was that of the university supervisor's specific responsibilities. These included providing information, orientations, observations, feedback, and evaluations to the student teachers, in addition to serving as liaison between the student teacher and the cooperating teacher and liaison between the university and the public school system. Each of these will be discussed in turn.

University supervisors most often discharged their orientation responsibilities through specific schedules for student teaching activities called "pacing guides." Orientation did not appear to have a high priority with these university supervisors since six intensive sample student teachers still expressed uncertainty about both their role in the schools and the university requirements of student teaching halfway through student teaching.

From the viewpoints of almost everyone directly involved with student teaching, one of the prime responsibilities of the university supervisor was to observe and provide feedback to the student teachers on their performances. When asked to describe an effective university supervisor, cooperating teachers emphasized the need for someone who maintained open communications among the participants, specified expectations early in the semester, made themselves available, and made frequent visits to the classroom.

While there was some variation in the number of observations made by university supervisors (from two per week to one every two to three weeks), most made weekly observations. A definite difference was noted between the accuracy of student teacher expectations at the two sites. All student teachers at State University expected weekly observations, and their supervisors met this expectation. In contrast only one university supervisor at Metropolitan University had communicated in such a manner that the student teachers' expectations matched the estimated frequency of observations (one every two weeks).

A part of the problem of mismatch between expectations and actual numbers of observations may be due to differences in terminology. Many Metropolitan University supervisors mentioned making "visits" to the classroom or "passing through" the classroom as well as making observations. The visits were very informal, brief, and apparently intended to quickly ascertain "how things were going." The function of these visits was apparently to keep lines of communication open and put in an appearance to demonstrate availability. The university supervisors at both sites also stated that short, frequent visits were enough to give them a sense of the adequacy of the student teacher's performance although five student teachers at State University and three at Metropolitan University stated that the university supervisors could have been more helpful to them if they had made more and longer observations as well as observations of different subjects held at various times of day in the classroom. Some of the student teachers stated that the university supervisors had not spent (or had not been able to spend) enough time observing to get an accurate indication of the student teachers' teaching abilities. The cooperating teachers also echoed this feeling, although to a lesser degree. They were more aware and forgiving of the many demands upon the time of the supervisors, especially the graduate students at State.

One of the most noticeable differences between the sites occurred in the frequency, style, and substance of the feedback given the student teachers regarding their performance. At State University weekly individual conferences were held. These were not necessarily prescheduled throughout the semester, but occurred either spontaneously (usually immediately after an observation) or at a later, scheduled time. In contrast, only one university supervisor at Metropolitan University held weekly conferences. Again the apparent differences may be related to the structure of the student teaching programs. State University supervisors were formally required to hold feedback sessions after an observation, while it does not appear that Metropolitan University supervisors were required to do so. The latter group tended to meet with student teachers for conferences on an as-needed basis rather than regularly. In addition the Metropolitan University supervisors each taught the university methods classes which the student teachers took concurrently with their classroom experience. Only one State University supervisor was teaching a concurrent methods class, although all State University supervisors were required to hold weekly seminars for their respective student teachers. The Metropolitan University supervisors in particular tended to depend upon these regularly scheduled class meetings to make contact with individual student teachers before and after the classes.

University supervisors also differed on the degree to which student teachers expressed satisfaction with the content of the feedback provided by the supervisors. Student teachers as a group reported emphasis on lesson plans, although individuals mentioned a wide variety of other subjects such as helpful ideas for presenting lessons. Five student teachers could not remember receiving any specific, helpful feedback. The major difference between the sites was in the apparent degree of satisfaction experienced by the student teacher in relation to the helpfulness of the university supervisors' feedback: seven student teachers at Metropolitan University said that all of the feedback given by the university supervisor was helpful, while only one student teacher at State University expressed equal satisfaction. Some student teachers at State University stated that the university supervisor made suggestions which did not apply to their particular class settings. In the opinion of the student teacher, this was due to the supervisor's unfamiliarity with the school. Others said that the style of observation (anecdotal record), feedback (self analysis), and/or conferencing (broad, open-ended questions on the feedback forms) at State University was not helpful.

Another major responsibility of the university supervisor was to evaluate the performance of the student teacher. Most university supervisors simply used the university-provided forms and adopted implicitly the criteria therein. Supervisors at both universities held mid-semester and end-of-semester evaluations with the student teachers; however, only at State University was inclusion of the cooperating teacher in a conference with the other two participants required.

Regardless of the criteria contained on the evaluation form, university supervisors concentrated on different aspects of student teachers' performances, based on their perceptions of their student teachers' needs or occasionally on the personal preferences of the supervisors. In the final evaluation a heavy emphasis was placed by university supervisors on classroom and behavioral management, followed by teaching skills, rapport with students, and evidence of classroom students' learning. When evaluating a particular lesson after observation, however, the university supervisors reported a different focus. When asked how they judged the success of an individual lesson, university supervisors responded most often that it depended on the student teachers' rapport with the pupils, their teaching skills, and the student teachers' knowledge of the academic content, respectively.

Liaison role. Another vital role and responsibility of the university supervisors related to student teaching was that of liaison between the cooperating teacher and student teacher, between either of these participants and the public school and/or the university, and between the university and the public schools at the institutional level. One of the first communication functions of the university supervisors was to provide cooperating teachers with information about the student teaching experience intended by that university. This was most often accomplished through the provision of "booklets" or "packets" produced by the local district or the university and outlining the duties of the cooperating teachers. Although most cooperating teachers expressed positive comments on the comprehensiveness and usefulness of the books and guidelines, several expressed a need for some further orientation to clarify their roles and responsibilities.

In addition to providing orientation, the university supervisors were also viewed as communicators. They often reminded participants of requirements to be fulfilled, and delivered and collected administrative paperwork. Although their role went beyond merely serving as a conduit of information, often their messages to student teachers and cooperating teachers were informal exchanges on a weekly basis as they "popped in and out" of the classroom. Both university supervisors and cooperating teachers reported that most exchanges were oral; those which were written were most often brief notes left in the student teachers' notebooks or on their lesson plans. These notes were often read by all participants over the course of the semester. Three intensive sample cooperating teachers reported at mid-semester that they had had little or no communication with the supervisor while four reported having communicated only upon their own request.

This infrequent communication was interesting especially in light of the formally established State University observation-and-feedback system. Each observation made by cooperating teachers or university supervisors should have been noted on the "Anecdotal Record," which was printed on self-carbon paper.

This would result in three color-coded copies of each page, one intended for the observer to keep as a record and the other two intended to be shared with the other two members of the triad. The "Feedback Forms" completed by the student teacher after reading and analyzing the "Anecdotal Record" of the observation were intended to be shared in a similar manner. The purpose of this system was obviously to keep all participants informed of the activities and comments of the other participants, as well as create and maintain a record of the interactions among the participants. The lack of references by cooperating teachers to the copies intended for them indicates interesting questions for further research.

As a liaison between the cooperating teacher and the university, the university supervisor provided several valued services for the cooperating teacher. When asked how the university supervisor was most helpful, cooperating teachers most often mentioned serving as a resource, pacing the student teaching experience, giving guidelines for the student teacher to follow, knowing the background of the student teacher, and interpersonal support of the cooperating teacher as another team member. In general, cooperating teachers felt the university supervisors could have been more helpful if they had more time available, if they shared more information about the teacher education program content, if they had clearer objectives, and if they were in the classroom more often. In addition, the cooperating teachers working with State University supervisors also mentioned the problem of time but additionally requested more structure and objectives from the supervisors. Thus, a site difference was seen between the satisfaction of the cooperating teachers with the university supervisors' performances.

On another level the university supervisors served as liaisons between the university and the public schools. The supervisors saw their role largely as one of providing communication, such as working with the building principals and keeping them informed with memos, and interpreting the requirements and expectations of the university to all district staff who might work with student teachers. On the other hand the university supervisors were kept appraised by the public school personnel of the curriculum changes in the district and the status of various programs in the schools. Such information was available for sharing with other university personnel and for updating the preparation of university students for the public classrooms. University supervisors also served an administrative function by facilitating the placement arrangements. In the Urban district supervisors were additionally responsible for managing a demonstration program where entire methods classes observed various classroom teachers presenting "demonstrations" of their teaching. The educational function provided to the Metropolitan University by these public school staff members was highly valued by student teachers, who often felt these were among the most helpful experiences of their preservice education.

A last important liaison function performed by the university supervisor between the university and the public school was in job recruitment and placement of the student teachers. Especially in the Urban district where teacher shortages were occurring in certain subject areas, the university supervisors discussed the strengths of various student teachers with public school staff. Metropolitan university supervisors also reported recruiting and encouraging student teachers to apply for teaching positions. This function was less evident in the Lakeview district where the university supervisors usually did not appear to have as much influence within the school district.

It is appropriate at this point to discuss a fundamental site difference related to the liaison role of the university supervisors. The university supervisors at Metropolitan University and Urban district were employed by both the public school district and the university. Their orientation was clearly aligned with that of the public school. So strong was this district orientation that if the district decided to discontinue the program due to budget reductions, some supervisors said they would prefer to return to other district-based work rather than other university work.

Support and reward systems. The informal processes within the university and public schools also impacted the support and reward systems of the university supervisors. University supervisors at both sites saw their major support from the university coming in the form of their use of various university personnel for advice, guest lecturing, demonstrating, and serving as friendly listeners. Informal support from the public schools usually was associated with interactions with cooperating teachers.

A considerable difference was evident in the financial rewards associated with the two sites. Full-time supervisors at Urban/Metropolitan were paid according to public school scale and received salaries approximately four to five times higher than those of the part-time supervisors at State/Lakeview. University supervisors reported other job satisfactions: they enjoyed working with other adults, the opportunity to plan their own schedules, the career and educational benefits of working with university faculty, and especially, the contacts with teachers and students within the classroom setting. The major reward, however, derived from access to school children and the contact with student teachers on a one-to-one basis. Globally speaking, responses from the supervisors indicated that they received their job satisfaction largely from their contact with people in general.

Although most supervisors spoke positively about their jobs, some problems with the job were mentioned. The most pervasive frustration, reported consistently throughout the semester at both sites, involved the lack of time to meet all the commitments of the job. Part of this problem was related to the student teacher-to-supervisor workload. For the graduate student State University supervisors, who held half-time positions (20 hours per week) and were registered for at least nine required graduate hours (a full-time load), the normal ratio was 12:1. For the full-time faculty members at State who were supervising to complete the faculty workload, five student teachers equaled one-third of that required workload. In contrast, the full-time Metropolitan University supervisors averaged 18 student teachers per supervisor this particular semester (although 25:1 was a more usual ratio in the past). These comments should be tempered by the fact that seven of the nine university supervisors reported that this was not a typical semester in terms of workload. According to the Metropolitan supervisors, the demands upon their time resulting from participation in this study were compounded with the demands of a new, time-consuming recruitment program.

Despite these problems university supervisors derived rewards equally from personal satisfactions with their job performances and from the reactions of cooperating teachers and student teachers to their performance. The university supervisors often reported that their greatest successes were in seeing improvement and growth in the student teachers, especially those individuals who had had problems and to whom the supervisors gave special attention. The supervisors took pride in seeing their suggestions accepted in the areas of behavior management, teaching techniques, and instructional planning. These ideas largely coincided with the areas of most concern for the student teachers. Although the university supervisors generally felt that they had done a good job during the semester described in the study, their satisfaction was tempered by the underlying realization that the key to a student teacher's success was the work of the cooperating teacher. Given this review of informal processes impacting universities and their supervisors of student teachers, some consideration must be given next to similar processes which occur in the public schools, particularly in relation to the cooperating teachers.

Informal Organizational Properties of the Public Schools Relating to the Cooperating Teacher

Although the public schools established formal guidelines to govern student teaching, the actual experience was also affected by the more informal, unique interactions within particular settings. This section will discuss the informal processes of the public school setting regarding the selection and training of the cooperating teacher, the orientation of the cooperating teachers to their role, the responsibilities of the cooperating teachers during the student teaching experience, and the informal support and reward systems that attach to the job.

Selection requirements and training. Given that certain public school teachers met the formal selection guidelines, probably the most important qualification for the job was availability of time and the willingness to use that time to work with a student teacher. Most cooperating teachers reported spending approximately one hour per day on student teaching related tasks. The amount of time one had to give may have realistically governed the final selection process for cooperating teachers.

Few cooperating teachers in the intensive sample reported receiving any training related to their role. Only six cooperating teachers, all from the Lakeview school district, said they had received any training that was helpful to them in their role. While ten said that further training would not be useful to them in their role, ten others saw a need for more specific information on the university requirements for student teaching, the content of teacher education courses, and the teacher preparation programs in general, as well as more training in supervisory skills.

Orientation to the role of cooperating teacher. Although formal guidelines were available at both sites, both the dissemination of the guidelines and the value placed upon them by cooperating teachers were variable. The few cooperating teachers at Lakeview who mentioned written guidelines most often associated them with particular supervisors who had their own particular requirements for student teaching. Some cooperating teachers had worked out their own plans for their student teachers to meet the cooperating teachers' own ideas of clinical teacher education.

Role perceptions also reflected variety. Some of the cooperating teachers saw student teaching as on-the-job training which should match the real world of teaching as much as possible while others saw it as a more insulated, artificial setting for novices to be eased into teaching under the most positive conditions possible. Despite these differences in philosophy, the cooperating teachers generally wanted to show the student teachers "what works" and "what's expected of a teacher" while also enabling the student teachers to develop "their own teaching styles," and insuring that "everyone in the class" was learning. (These and following quotations are from the interview data.)

Responsibilities to the student teacher. A third area where the informal processes of the public schools influenced the student teaching experience was the area of the cooperating teacher's responsibilities. These included providing information and orientation to the classroom and school, helping the student teacher with planning, participating in observation, feedback, and evaluation as well as serving as a mediator between the student teacher and university supervisor. These will each be discussed in turn.

Even though student teachers were often unclear about university requirements conveyed by the university supervisor, they expressed more satisfaction with their public school orientation. Fourteen of the student teachers reported attending some orientation given in the public school by the principal or by another administrator; however, cooperating teachers were mentioned most frequently as having first made student teachers aware of their responsibilities to the school building, the particular classroom, and their students.

In the area of planning, ten intensive sample cooperating teachers did report spending some time conferring with their student teachers about planning; however, sessions for two of these student teachers took place in the morning immediately before class began and for two other student teachers over the telephone the evening before lessons were to be taught. For a few student teachers, weekly afternoon planning conferences were held. The planning practices of student teachers and cooperating teachers remains a question for further investigation.

In contrast to the university supervisors with their weekly or biweekly observations, most cooperating teachers indicated that they observed the student teachers almost continuously. These observations were rarely formal and usually produced short, jotted notes as written records; only three of the Lakeview cooperating teachers reported making the university-requested weekly observations using self-carbon anecdotal forms. Three cooperating teachers reported deliberate non-use of the requested forms, because their student teachers did not think they "got anything out of these observations."

Intensive sample cooperating teachers also differed in the foci of their observations. Ten stated that their major focus was on the preparation and delivery of lessons by the student teachers while eight reported looking mainly at behavior management and the student teacher's control of the classroom because "that's where it's at." To a lesser extent, cooperating teachers also concentrated on classroom students' success in the lesson, student responses to the student teacher, the general atmosphere of the classroom, the personality of the student teacher, how the student teacher handled him/herself in the class, and how the student teacher felt about his/her performance.

Observation and feedback on the part of cooperating teachers was frequent and informal. Opportunities to talk during the day were seized while short, encouraging notes were often left by cooperating teachers on lesson plans or notebooks. Some cooperating teachers chose to "hit everything" since time was short and the student teacher had much to learn; other cooperating teachers took one behavior at a time to avoid overwhelming the student teachers with constant surveillance and feedback. Three cooperating teachers who had completed a training program for supervision of student teachers used the observation-feedback system that they had learned in that program. Cooperating teachers and student teachers reported that the feedback consisted mainly of suggestions for teaching, followed by evaluation of the actual teaching and lesson plans. Thirteen student teachers indicated ways in which their cooperating teachers could have been more helpful in their feedback. Student teachers had specific requests related to the activities of teaching: more sharing of ideas for lessons, help with lesson content, more guidance in preparing the first unit, help with questioning, and help with long range goals for that particular grade level. Other student teachers requested more informal communication, more constructive criticism, and more sharing of information in general by the cooperating teacher. Eight of the 20 student teachers stated that their cooperating teachers could not have been more helpful. On the whole, cooperating teachers appear to have communicated successfully to their student teachers the expected style, frequency, and content of the observation and feedback process.

Another major responsibility of the cooperating teacher was to evaluate the performance of the student teacher. Thirteen of the intensive sample cooperating teachers used the university-provided forms as the basis of their evaluations while six based their evaluations upon how the students in the class responded to the student teachers, either socially or academically. One other cooperating teacher, who was working with a student teacher for the first time, had the impression that cooperating teachers were not included in the evaluation process, a definite misconception. Despite formal evaluation processes, the practice of evaluation at these sites was at variance with those established processes.

Liaison role. Another important responsibility of the cooperating teachers was to serve as a liaison between the university supervisors and the student teachers. Their services in this area were highly valued, especially by the State University supervisors; four of the five said that the cooperating teachers had been most helpful in supplying information to the university supervisor regarding the teaching performance of the student teacher. In the opinions of the university supervisors, this information was based upon much more exposure to the day-to-day strengths and weaknesses exhibited by the student teachers in their classroom performance than was the information gathered by university supervisors themselves. Such information was therefore considered vital by the university supervisors if they were to make fair, objectives evaluations of the student teachers' performances.

Secondly, the cooperating teachers were perceived by the university supervisors as carrying a large burden of the responsibility for leading student teachers in the process of teaching. This, of course, relieved the supervisors of some responsibility.

Finally, both student teachers and university supervisors considered the cooperating teachers to be their supporters and confidants, especially if problems arose. The cooperating teachers were seen as available, knowledgeable persons who could be approached for assistance by either university supervisors or student teachers. Both groups remarked that many cooperating teachers provided them much in the way of emotional and psychological support throughout the experience.

Reward System. A final area where the informal processes of the pulic school were examined as they related to the cooperating teachers was that of an informal reward system. Although cooperating teachers did received some remuneration ($10.00 at one site and $200.00 at the other site), cooperating teachers did not report this as a major source of reward. They most often valued the opportunity to have another adult in the classroom (in some cases to free them to work individually with more students), the opportunity to induct a new professional into their "kind of teaching," and the opportunity to learn new ideas, observe another teacher, and see progress in the student teacher.

The specific successes recalled by the cooperating teachers did change over the semester. Early in the semester the cooperating teachers reported being most successful in establishing rapport with the student teachers and in seeing some progress in the student teachers' confidence and relaxation before the class. At the end of the semester, cooperating teachers indicated their successes were in providing a good student teaching experience and again in seeing progress in the confidence of the student teacher.

Cooperating teachers could also be expected to draw a reward from having a sense of doing a good job as a cooperating teacher. An interesting site difference emerged when intensive sample cooperating teachers were asked what kind of job they thought they had done. Nine of the Urban district cooperating teachers reported that they had been "excellent" cooperating teachers: they exuded a sense of well-being and pride in their work. On the other hand, this sense was lacking in the Lakeview district cooperating teachers. Only one cooperating teacher expresses a positive sense of accomplishment and this was based upon the student teacher's statement of appreciation.

This section of this chapter presented findings (largely from interview data) about the informal organizational properties of universities and public schools as they impacted the preservice clinical teacher education experience. The area of placement of student teachers was addressed followed by discussion of informal processes specifically related to university supervisors and cooperating teachers. These processes were selection and training requirements, orientation to the role, responsibilities during student teaching, and the support and reward systems.

Summary

This chapter integrated a variety of quantitative and qualitative data focusing on the description of various contextual influences upon the preservice clinical teacher education experience. It was organized into three sections which reviewed the characteristics of participating elementary and secondary schools and their populations; the formal regulations of participating universities and school systems which govern student teaching; and the informal organizational properties of the participating universities and public schools.

The first section described briefly some broad contextual variables pertaining to the two sites which participated in the study. For example, information about school neighborhood socioeconomic status (SES) and pupil busing was presented. Both sites, on the average, consisted mostly of pupils from middle and low income families, with lower incomes appearing to be somewhat overrepresented. Slightly more Urban than Lakeview schools were in low SES neighborhoods. Certain other contextual factors (e.g., parental involvement in the schools, special school programs) were briefly discussed. All of the above contextual information was utilized to assist in the interpretation of findings from the five factor subscales of the Teacher Work-Life Inventory (Blumberg & Kleinke, Note 8) and on the Student Teacher Satisfaction and Expectations Scales (Hughes & Hukill, Note 5).

The second major portion of the chapter examined the formal organizational properties of the two participating universities, as these impacted student teaching programs at each university. In particular, the requirements for admission into the programs, as well as for entering student teaching, were reviewed and found to be largely similar. However, those at State appeared to be a little more detailed and required a somewhat higher grade point average for entering student teaching.

Next, rules guiding the process of assigning student teachers to placements were reviewed; a clear contrast in the formal statements was observed. The process at State University was found to be centralized, i.e., the administrator who serves as Director of Field Experiences was responsible for assigning placements. In contrast, the university supervisors at

Metropolitan were responsible for assigning placements. Requirements for satisfactory completion of student teaching were also presented; those at Metropolitan seemed to mention more specific "how-to's," while those at State seemed to suggest parameters within which the student teachers were expected to operate. State University regulations appeared to focus upon absences and outside responsibilities as potential problems more than the regulations at Metropolitan.

The certification or credentialing processes and requirements at each institution were discussed, also. Differences in the number of requirements printed in the handbooks were clearly evident (Metropolitan having more). One of the two sites offered permanent certification only; the other could provide an intermediate or "preliminary" credential pending completion of additional, postgraduate work.

The grievance procedures available to cooperating teachers and supervisors at each site were reviewed next and found to be quite similar. Both sites seemed to have similar due process requirements, such that the student teachers in question were to be notified at the earliest possible time, and the cooperating teachers were expected to make their concerns known initially to the university supervisor. One contrast was apparent: the guidelines available to Metropolitan's teachers clearly stated that a cooperating teacher may refuse to permit a student teacher to continue at that placement, regardless of the supervisor's opinion.

Both institutions were found to have job placement services available to their student teachers. In one case, signing up with the placement office was optional (though strongly encouraged). In the other, it was required; no fees were charged to students for opening the file.

The third major section of this chapter presented findings (largely from interview data from intensive sample members) about the informal organizational properties of universities and public schools as they impacted the preservice clinical teacher education experience. Placement of student teachers, selection and training requirements of university supervisors and cooperating teachers, orientation to the role, responsibilities, and support and reward systems were discussed. In general, variations from prescribed guidelines were noted in placement of student teachers and in selection of cooperating teachers at both sites. Neither university supervisors nor cooperating teachers reported extensive training for their roles. The university supervisors placed most emphasis upon periodic observation or visiting the classroom at both sites. The State University supervisors also placed emphasis upon regular feedback sessions with student teachers. Cooperating teachers placed their efforts during student teaching also on observation and feedback; however, their observations and feedback were almost continuous. University supervisors more often mentioned peer support groups while cooperating teachers more often mentioned formal, administrative support groups. Finally, both groups drew rewards from personal interactions within the context, either with children or other adults involved in student teaching.

In sum, the characteristics of the participating elementary schools and their populations, the formal regulations of participating universities and school systems, and the informal organizational properties of the participating universities and elementary schools were not necessarily distinct. Such similarities may mean that conclusions drawn from the data collected in this study may have implications for teachers in training in like settings. The final chapter of this report will discuss the impact of the context upon the student teaching experience.

CHAPTER 6

THE SUPERVISION AND FORMATIVE EVALUATION OF STUDENT TEACHERS

Observations and feedback serve as the vehicle for both the instruction and the subsequent formative evaluation of the student teacher. Regular observation and feedback may therefore be the most important function of the university supervisor and the cooperating teacher as they go about the business of supervising and evaluating their student teachers.

Goldhammer (1969) viewed supervision as a five stage process; (1) the preobservation contact, (2) the observation, (3) the analysis of the observation, (4) the conference and (5) the self-reflection of the participants. In an effort to describe in detail the supervision and formative evaluation of the student teacher this chapter will focus on the final three stages of Goldhammer's model through the analysis of three data sources.

First, conferences were examined. Audiotapes of conferences in which the student teacher was involved were analyzed for both their content and the process of the interactions. Secondly, all journal entries of the triad (i.e. the student teacher, the cooperating teacher and the university supervisor) were examined for any comments dealing with the supervision and evaluation of the student teacher. Finally, interviews, which were conducted with each member of the triad, were examined and any information dealing with supervision and evaluation was extracted and analyzed.

Using these data this chapter will (1) describe the nature of the supervision and formative evaluation of student teachers, (2) determine whether those supervisory and evaluative situations, as reported by the triads, are congruent with each university's established protocols, and (3) determine if the participants' perceptions of supervision and the formative evaluation of student teachers, as reported in their journals and interviews, are congruent with the supervision that surfaces during the cooperating teacher-student teacher conferences.

Supervision and Formative Evaluation - A Description

Conference Data

To describe the supervision and formative evaluation of student teachers audio tapes of all conferences conducted by intensive sample members were analyzed. Two sets of conference data existed; those conferences that involved the entire triad (i.e. student teacher, cooperating teacher, and university supervisor), and those conferences in which the cooperating teacher and student teacher were the only participants involved. One hundred forty eight conference tapes involving student teachers and cooperating teachers were collected, while only 5 conference tapes involving entire triads were collected. Of the dyadic conferences collected, a sample of 76 were coded and analyzed. All five of the collected conferences involving the entire triad were coded and analyzed.

That there were so few tapes collected involving the entire triad may be explained in a number of ways. First, only one of the universities involved in the study required three-way conferences as a part of the student teaching experience. Also, since the tape recorder was usually set up in the cooperating teacher's classroom, a three-way conference which took place in another location may not have been recorded. Three-way conferences are usually evaluative in nature and may have had great impact on the student teacher involved; therefore, the student teacher may have resisted recording this type of conference. Because the data from these three-way conferences could not be considered as representative of the sample they were not included in this analysis.

Selected conference tapes were first transcribed and then coded using a variation of Weller's (1971) MOSAIC system of analysis. This coding system was developed to provide information about how the exchange of information between the cooperating teacher and the student teacher took place. In terms of process, the coding focused upon describing the exchange of information between the cooperating teacher and the student teacher. Who did the talking, to whom the talk was directed, and what type of talking occurred were described. In terms of content, the nature of the topics discussed in the conferences was examined. Three major categories were included under content; "teaching", "organization of student teaching," and "other." An overview of the analysis of the conference data is provided in Figure 6.1.

Process. Process data for all conferences were collapsed. Mean frequencies and percentages were used to describe these conferences. Frequencies were derived from the number of typed lines contained within each statement. A statement was defined as one participant's turn in the conversation and may therefore have contained information about more than one topic.

As the data in Table 6.1 indicate, across all conferences, cooperating teachers tended to dominate the interactions. A mean total of 330.45 lines of type were transcribed for each conference. Of these 330 lines, cooperating teachers spoke approximately 72% of them, while student teachers uttered 28% of the total lines. Because these conferences were dyadic in nature the direction of the interaction was assumed (i.e. when a cooperating teacher

Figure 6.1

Coding Categories Used in the

Analysis of Conference Data

Statement Number	Number of Lines	Process			Content												
					Teaching										Organization of Teaching		Not Applicable
					Generality		Focus				Domain						
		Who	Type	Direction	Classroom-Specific	General	Objectives	Methods and Materials	Execution and Instructional Interactions	Other	Cognitive	Affective	Social-Disciplinary	Other	Student Teaching Protocol	Student Teaching Activities	

Table 6.1

Cooperating Teacher-Student Teacher

Conference "Talk"

	Cooperating Teacher	Student Teacher	Total
Mean Number of Lines* per Conference	229.86	100.59	330.45
Mean Percentage of Talk by Participant per Conference	71.89	28.11	100.00

* "Lines" refers to the typed lines of a transcribed conference. An average count of 12 words appeared in each typed line of conference data.

spole, his/her statement was directed toward the student teacher and vice versa).

Fourteen categories were used to describe the type of talk that occurred. Data describing the type of talk are displayed in Table 6.2. When examining the cooperating teachers' talk, the most frequently occurring type was "review". More specifically, the cooperating teacher was coded as interacting by reviewing or commenting on classroom events or student teaching activities more often than any other type of interaction. For example, one cooperating teacher reviewed the following incident for a student teacher: "I had a little girl two years ago who was partially blind ... her mother came up and registered her and didn't say a thing."

When examining the mean total of typed lines, the cooperating teachers reviewed or commented on classroom events in approximately 37% of these lines. The second most frequently occurring type of teacher interactive behavior was "direction giving". Cooperating teachers gave their student teachers specific directions regarding instruction in approximately 21% of typed lines. For example, one cooperating teacher explained the following to her student teacher: "The language unit you are going to be working on will be dictionary skills."

The least frequently occurring type of cooperating teacher statement was "acknowledgement or endorsement". This type of statement contained little information and consisted of the teacher providing his/her partner with a remark such as "yes", "right", "fine", etc. Cooperating teachers' typed lines were classified as acknowledgements in approximately 3% of their statements.

On the other hand, student teachers' statements were classified as acknowledgements in almost 24% of their typed lines. However, student

Table 6.2
Process Data From Cooperating Teacher-Student Teacher Conferences

		Type of Comment								
		**1	2	3	4	5	6	7	8	9
Cooperating Teacher	Mean Frequency of Occurrence	46	12.01	15.56	81.91	16.79	23.41	6.03	*	26.86
	Mean Percentage	21.20	7.24	8.29	35.79	5.95	10.17	2.79	*	7.36
Student Teacher	Mean Frequency of Occurrence	*	*	1.88	20.95	*	15.68	19.76	7.70	23.32
	Mean Percentage	*	*	4.35	32.41	*	18.65	23.50	9.12	9.86

* Blank cells indicate that the code was not used for that participant.

** Types of comments:
1. Gives directions
2. Asks about interests
3. Provides evaluative feedback
4. Reviews or comments on classroom events or student teaching events
5. Provides options
6. Describes interests and concerns
7. Acknowledgement
8. Offers suggestions
9. Other

teachers proved to be like their cooperating teachers in that when they participated in an interaction, the majority of tehir talk focused on classroom events. Approximately 32% of the student teachers' statements dealt with the review of classroom events or student teaching activities. The least frequently occurring type of student teacher interactions were those coded as "evaluation". An example of an evaluation statement by a student teacher follows: "I feel good about the way the students are working independently at my spelling center. Children need to learn how to work on their own."

Content. In addition to classifying conference information as to the process of the interaction, conference statements were also analyzed with regard to what was said. Table 6.3 summarizes content information across all conferences and all participants. Three categories were included under content: "teaching," "organization of student teaching" and "not applicable." Each conference statement was classified in terms of one or more of these categories. As the data in Table 6.3 indicate, the majority of all conferences focused on teaching as opposed to the organization of student teaching. The teaching category included all talk dealing with the classroom teaching experience. For example, if a cooperating teacher said the following to his/her student teacher it would be classified as a teaching remark: "I noticed during your lesson that students were responding without raising their hands."

The organization of student teaching category referred to the training and supervision of the student teachers. An example of a statement coded under this category follows: "Before I observe your teaching I will always meet with you for a concerns conference ... at this conference you should be prepared to tell me what you want me to focus on during my observation."

Table 6.3
Content Data From Cooperating Teacher/
Student Teacher Conferences--All Participants

	Teaching	Organization of Student Teaching	Not Applicable
All Participants (i.e., Cooperating Teachers and Student Teachers)	*79.11%	18.42%	8.12%

*Percentages equal more than 100% because the "Teaching" category and the "Organization of Student Teaching" category were not mutually exclusive.

On the average, 79.11% of each conference focused on teaching while 18.42% focused on the organization of student teaching.

Table 6.4 summarizes content information across all conferences by participant. As is evident from the data displayed in Table 6.4, when cooperating teachers' and student teachers' talk was examined separately no substantial differences were noted.

For the most part, talk about teaching events occurred most often. In approximately 80% of all statements cooperating teachers focused on teaching events. Approximately 75% of the student teachers' statements dealt with teaching. In addition the teaching category was broken down into three subcategories; "generality", "focus", and "domain". Codings under the generality category indicated whether the teaching events discussed were specific to the immediate classroom and student teaching experience or were more general in nature. These more general statements might include information about past experiences or the application of theory from educational thought or related behavioral sciences. Weller (1971) stated that this might be considered "clinical analysis" vs. "the curriculum and methods course." An example of a specific statement made by a cooperating teacher to a student teacher follows: "Explain that they need to bring a piece of paper to the spelling center."

A general statement, however, would be as follows: "Research says that it helps if you state your expectations at the beginning of the lesson."

The focus category analyzed interactions for information dealing with instructional content and objectives, methods and materials, or the actual execution of the lesson. Statements coded as instructional content and objectives dealt with expected educational outcomes and/or the subject matter

Table 6.4

Content Data From Cooperating Teacher/ Student Teacher Conferences by Participants

	Teaching	Organization of Student Teaching	Other
Cooperating Teacher	*80.06%	18.33%	7.61%
Student Teacher	74.53%	20.00%	10.17%

*Percentages equal more than 100% because the "Teaching" category and the "Organization of Student Teaching" category were not mutually exclusive.

related to those outcomes. For example, a teacher's statement would be coded as instructional content and objectives if he/she said the following: "They are going to write, 'Is the cow purple?' instead of 'The cow is purple.'"

Statements coded as methods and materials dealt with the materials of instruction and/or those strategic operations designed to achieve objectives. An example of one of these "how to" statements follows: "Just go through and review them at that point ... then take them through the word cards one at a time."

The subcategory, execution of lessons, focused on instructional interactions between the teacher, pupils and content or curriculum. An example of a statement coded as this subcategory follows: "What I was trying to get them to do was write their answers in complete sentences but half the class never seemed to understand. I guess I'd better go back over this."

The third category determined what domain the instructional interaction focused upon (i.e. cognitive, affective, or social/disciplinary).
The dimension of instructional domain was adapted from Bloom (Bloom, et al., 1956). Typed lines coded as pertaining to the cognitive domain focused on cognition, knowledge, understanding and learning. The cognitive domain was here restricted to cognitive interactions between pupils and subject matter. For example, the following statement was coded as pertaining to the cognitive domain: "I'm going to put a check-sheet up so they can check off when they've done each set of questions."

Typed lines pertaining to the affective domain focused on pupil interest, involvement and motivation. Typed lines coded as dealing with the affective domain follow: (cooperating teacher speaking to student teacher about a certain pupil's behavior): "She was a non-volunteer and you encouraged her by saying 'Don't be nervous' and 'Very good.'"

When typed lines were coded as pertaining to discipline, control and social interactions they may have resembled the following statement: "I think there should be a time limit or some people would spend an hour at the spelling center. They should be limited to four at a time."

As the data in Table 6.5 indicate, all participants tended to be highly specific when discussing teaching events. Typed lines were specific in approximately 91% of all statements dealing with teaching events. In addition, most teaching interactions focused on the methods and materials of instruction. Approximately 49% of each conference focused on the methods and materials of the teaching event, approximately 28% of each conference focused on instructional interactions and execution, while 18% of the conference time was devoted to the content and objectives of the teaching events being discussed. Under 6% of the data in this area dealt with a different focus than those stipulated. When the third subcategory, domain, was examined, mean frequencies indicated that cooperating teachers and student teachers tended to be most concerned with the cognitive domain. Concerns with the cognitive domain were addressed more often in instructional conversations dealing with teaching events than the other dimensions of instructional domain (i.e. affective and social/disciplinary). Talk dealing with the cognitive domain dominated 69% of the teaching event statements whereas approximately 21% of all teaching conversations addressed social/disciplinary concerns. The least frequently addressed area within instructional domains was the affective domain. Only 6% of the teaching event statements dealt with concerns in the affective domain.

Table 6.6 displays content data by participant. Student Teachers and cooperating teachers were not substantially different when the content of their teaching statements was examined. For example, both cooperating

Table 6.5

Content Data from Cooperating Teacher/Student Teacher Conferences Dealing with Teaching - Mean Number of Typed Lines and Percentages for All Participants*

		Generality		Focus				Domain			
		1*	2	1**	2	3	4	1***	2	3	4
All Participants (i.e., Cooperating Teachers and Student Teachers	Mean Frequency of Occurrence	211.05	31.83	41.42	126.23	63.36	12.41	155.32	6.86	58.91	22.14
	Mean Percentage	90.71	9.29	18.45	49.20	27.53	5.12	69.14	3.41	21.42	6.12

Note that percentages may not total to 100 due to rounding error.

Categories
* 1. specific statements
2. general statements

** 1. content and objectives
2. materials and methods
3. execution
4. other

*** 1. cognitive
2. affective
3. social/disciplinary
4. other

Table 6.6
Content Data from Cooperating Teacher/Student Teacher Conferences Dealing with Teaching - Mean Number of Typed Lines and Percentages by Participant*

		Generality		Focus				Domain			
		1*	2	1**	2	3	4	1***	2	3	4
Cooperating Teachers	Mean Frequency of Occurrence	150.47	25.86	29.64	95.50	42.68	8.77	113.14	4.73	43.44	15.15
	Mean Percentage	89.67	10.30	17.70	50.98	26.11	5.47	69.02	3.39	21.44	6.18
Student Teachers	Mean Frequency of Occurrence	60.59	5.97	11.79	30.73	20.68	3.64	42.18	2.14	15.47	6.98
	Mean Percentage	91.33	7.12	21.06	41.98	31.12	4.45	67.64	3.53	20.77	6.53

Note that percentages may not total to 100 due to rounding error.

Categories

* 1. specific statements
   2. general statements

** 1. content and objectives
   2. materials and methods
   3. execution
   4. other

*** 1. cognitive
   2. affective
   3. social/disciplinary
   4. other

teachers' and student teachers' statements about teaching were most often specific in nature. In addition, both participants' statements focused for the most part upon the methods and materials of teaching.

In addition to examining the content of the cooperating teacher-student teacher conversations in terms of teaching, these conversations were also examined for talk about the organization of the student teaching experience. All statements that referred to the training and supervision of the student teacher were included in this category and were coded in terms of "protocol" and "activities."

Protocol included all information about the structure, formal procedures, and the administration of student teaching. For example, one cooperating teacher said the following to her student teacher in reference to a university-provided list of requirements for student teaching: "Sending and escorting children to special classes, you are doing that. Continue recording needs and accomplishments of children, saving examples of writing. You need to do that."

Activities included all information about events in which the student teacher participated. These events might include observations, preparation of projects for methods classes, and/or the scheduling of teaching times. The following statement, made by a student teacher, was coded as pertaining to student teaching activities: "On Thursday I have a seminar. I'll ask (supervisor) about an observation time then since she didn't get to me this week."

As the data in Table 6.7 indicate, when the organization of student teaching was addressed, participants usually focused on the protocols of student teaching. Approximately 81% of the typed lines dealing with the organization of student teaching were devoted to the protocols of student teaching. The activities of student teaching were discussed in 13% of these typed lines.

In addition, the content of the student teachers' and the cooperating teachers' conversations was examined individually. The data in Table 6.8 indicate that a similar pattern emerged. Again individual participants did not vary from the pattern established by the group as a whole. For the most part, cooperating teachers and student teachers spent the majority of time, when discussing the organization of student teaching, focusing on the protocols involved. Cooperating teachers focused on protocols in approximately 80% of their statements dealing with the organization of student teaching and student teachers focused on protocols in approximately 73% of their statements. In addition, cooperating teachers devoted around 12% of these statements to the activities themselves whereas student teachers spoke of the specific activities of student teaching in less than 11% of their teaching event conversations.

Summary

Audio-taped conferences between cooperating teachers and student teachers were transcribed and analyzed in terms of the process of the communication as well as the content of the interaction. In terms of the process of the conferences, the analysis focused on who did the talk, to whom the talk was directed, and what type of talking occurred.

Conferences between student teachers and their cooperating teachers were dominated by the cooperating teacher. In addition, most talk, whether it was initiated by the cooperating teacher or the student teacher, was classified as a comment. These comments dealt with classroom events or with student

Table 6.7
Content Data from Cooperating Teacher/Student Teacher Conferences Dealing with the Organization of Student Teaching - Mean Numbers of Typed Lines and Percentages for All Participants

		Activities	Protocol
All Participants (i.e., Cooperating Teachers and Student Teachers	Mean Frequency of Occurrence Per Conference	6.80*	48.24
	Mean Percentages Per Conference	13.29	80.64

*Note that percentages do not add to 100% because they are the averages for all conferences; i.e., each conference contributed equally to the average regardless of each conference's duration.

Table 6.8
Content Data from Cooperating Teacher/Student Teacher
Conferences Dealing with the Organization of
Student Teaching - By Participant Role

		Activities	Protocol
Cooperating Teachers	Mean Frequency of Occurrence Per Conference	5.24	35.02
	Mean* Percentage	11.86	79.03
Student Teachers	Mean Frequency of Occurrence Per Conference	1.56	13.23
	Mean* Percentage	10.35	72.98

*Note that percentages do not add to 100% because they are averages for all conferences, i.e., each conference contributed equally to the average regardless of each conference's duration.

teaching activities. Cooperating teachers also spent approximately 20% of the reported conference time giving directions to their student teachers. Student teachers spent about the same amount of time simply acknowledging what the cooperating teacher had said. Student teachers and cooperating teachers rarely made evaluative remarks.

When the content of the talk from the conferences was analyzed all participants tended to spend more time discussing teaching rather than the organization of student teaching or subjects that were outside the teaching realm. An average of 79.11% of all statements per conference were categorized as discussing teaching, whereas 18.42% of the statements dealt with the organization of student teaching and 8.12% were classified as not applicable to teaching. When the content of the conferences was examined by participant type, this pattern did not change. In other words, cooperating teachers and student teachers did not deviate from the groups' behavior as a whole.

The category "Teaching" was delineated. This analysis indicated that most statements in the conferences were specific in nature, dealt with the materials and methods of teaching and focused on the cognitive domain. Again, when the patterns of single participant types were examined they did not deviate substantially from the pattern of the group as a whole. The category "Organization of Student Teaching" was also broken down. Approximately 81% of all statements concerned with the organization of student teaching, dealt with protocols, whereas 13% of all statements were devoted to the activities of student teaching. When single participant types were examined, similar trends were noted.

Congruence of Supervisory and Evaluative Situations With University Protocols

In addition to describing cooperating teacher-student teacher conferences, protocols regarding supervision and formative evaluation from each participating university were examined. A description of cooperating teachers' responsibilities in these areas follows. For a more detailed report of university protocols the reader is referred to Defino, Barnes, and O'Neal (1981).

University Protocols

University protocols regarding formative evaluation and supervision do not differ substantially from institution to institution. Guidelines provided at each institution indicated that those who supervise student teachers should promote the effective application of instructional and management skills. However, due to the absence of operational definitions, one has difficulty determining exactly how cooperating teachers and university supervisors should accomplish this goal. The following section of this paper will delineate cooperating teachers' supervisory responsibilities as stipulated by each participating institution. As previously stated, conferences in which university supervisors participated were few and were not included in the previous description of supervision and formative evaluation. Therefore, the university protocols regarding their supervisory role are not a part of the following description.

State University. Cooperating teachers at State University are provided with a handbook which stipulates the following responsibilities (paraphrased for brevity).

1. Accept the student teacher as a professional.
2. Acquaint the student teacher with appropriate school policies,

personnel, materials, resources, and special programs.

3. Allow the student teacher to assume responsibility as his/her readiness permits.
4. Encourage the student teacher to be creative and try new teaching strategies.
5. Require lesson plans from the student teacher prior to his/her teaching.
6. Observe the student teacher instructing the class on a regular basis (at least weekly) and provide written notes to both the student teacher and university supervisor.
7. Provide an organized feedback session for each observation, together with a written summary of the session results to both the student teacher and the supervisor (this need not be to the exclusion of notes taken by the student teacher).
8. Conduct regular cooperative planning sessions with the student teacher (a minimum of one each week).
9. Complete a student teaching assessment form at the end of the semester and discuss it with the student teacher. There should also be a mid-semester conference in which the student teacher is informed of his/her level of proficiency and is offered concrete suggestions for improvement.
10. Attend inservice meetings conducted for cooperating teachers.

In addition, the school district outlines the role of the cooperating teacher. Lakeview School District provides the cooperating teacher with an additional handbook which stipulates the following guidelines for supervision.

Cooperating teachers should:

1. Recognize that the professional and legal responsibility of the classroom remains in the hands of the regular teacher.
2. Accept the student teacher as a fellow professional.
3. Help the student teacher accept each child as a unique individual.
4. Plan with the student teacher the steps in assuming classroom responsibilities, and allow the student teacher to assume more responsibility as he/she exhibits readiness to do so.
5. Demonstrate effective teaching.
6. Encourage the student teacher to be creative and try new teaching strategies.
7. Plan for periodic evaluations with major emphasis on continuous growth.

A high degree of similarity exists between the guidelines stipulated by the university and those outlined by the school district. Similar guidelines are proposed by Metropolitan University.

Metropolitan University. The Cooperating Teachers in the Urban Unified School District are also provided with a handbook which stipulates their role in the supervision of student teachers. The following responsibilities (paraphrased for brevity) are delineated.

The cooperating teacher will:

1. Safeguard the welfare of their students by maintaining an acceptable instructional program at all times.
2. Perform all regular classroom duties under the direction of the principal.
3. Acquaint the student teacher with the school, the school faculty and staff and the pupils.

4. Provide the student teacher with copies of all texts, manuals, school bulletins and forms.
5. Attempt to establish the student teacher as a leader in the classroom.
6. Observe the student teacher, record all observations in detail and provide feedback to the student teacher at weekly conferences.
7. Evaluate the performance of the student teacher.
8. Confer with the university supervisor frequently to provide him/her with informed evaluations of the student teacher's progress.
9. Participate in inservice education classes and professional meetings dealing with the supervision of student teachers.

Discussion

The overall thrust of the guidelines from both institutions seems to be one of shared professionalism as well as promoting the student teachers' skills in effective classroom management and instruction. In addition cooperating teachers at each site were expected to serve in an evaluative capacity. Conferences to some degree exemplified the guidelines offered for the supervision of student teachers.

For example, talk about teaching occurred most often during cooperating teacher-student teacher conferences. Few of the statements made, however, were of an evaluative nature. It should be noted that when the content of the statements about classroom teaching was examined in detail, cooperating teachers focused on the methods and materials of instruction in over 50% of their statements. In addition, their conversations pertained to how the lesson interacted with the students in 26.11% of their conversations. Nonetheless, few of the statements were explicitly evaluative. In addition, conferences were dominated by cooperating teachers' talk. Thus, these conferences do not seem to have exemplified cooperative planning sessions, nor a sense of shared professionalism.

Summary.

Conferences between cooperating teachers and student teachers met some of the universities' stipulated guidelines for formative evaluation and supervision. Cooperating teachers did focus on classroom management and instruction, yet were not explicit about their own opinions of what constitutes effective teaching. Conferences were not cooperative planning sessions but instead were dominated by the cooperating teachers. Conferences seemed to reflect a teacher-pupil relationship between cooperating teacher and student teacher rather than a collegial one. In addition, few evaluative statements were made.

Congruence of Supervisory and Evaluative Situations with Participants' Perceptions

To determine whether supervision and formative evaluation of student teachers was congruent with participants' expectations for such, audio tapes of the supervisory conferences were analyzed and compared to participants' perceptions. Participants' perceptions of supervision and formative evaluation were gathered through journals and individual interviews. University supervisors' journal and interview data on supervision is included in the following description even though they were not a participant in the supervisory conferences described earlier in this paper. Their concerns, as stipulated in their journals and interviews, were included because they may have had some impact on the supervision of student teachers.

Journals

Five categories were established to identify information contained in journals. These five categories are: (1) Background, (2) Teaching, (3) Supervision, (4) Goals, Expectations and Ideals, and (5) Context. Trained coders classified information contained in journals according to these five categories. This coding system did not aim to reduce these data, but rather to organize them. To obtain information with regard to participants' perceptions of supervision and formative evaluation, category three, Supervision, was examined.

The information in the journals dealing with supervision was subdivided further. Data guided the development of these categories to avoid the forcing of information into a preconceived classification system. Percentages were derived from frequency counts of journal lines devoted to individual categories. Four general subcategories within supervision emerged; (1) "Teaching," (2) "Protocols of Teaching," (3) "Personal Relationships," and (4) "Other."

Information coded as "Teaching" dealt with all supervisory statements focusing on the performance of the student teacher and/or the pupils during classroom instruction. For example, the following cooperating teacher's journal statement was coded in the "Teaching" category: "She (student teacher) seems to be doing an excellent job. The only criticism is that she has been cautious in trying new instructional techniques."

Journal information coded as "Protocols of Teaching" focused on comments dealing with the university's and school district's expectations for supervision of the student teacher. An example of a cooperating teacher's comment classified as protocol follows: "Tomorrow morning I'm teaching because the student teachers have their regular methods class (DUMB - in the middle of their all day assignment - they lose continuity)."

The personal relationship category included all general statements regarding the association of the cooperating teacher and student teacher. The following statement was extracted from a student teacher's journal and exemplifies a comment coded in the personal relationship category: "My cooperating teacher is great. She shows concern for me."

The data in Table 6.9 indicates that while cooperating teachers and university supervisors focused on teaching more than any other area, student teachers appeared to be more concerned with personal relationships. Of the cooperating teachers' supervisory comments, 62.6% of those journal lines were categorized as Teaching. Likewise, university supervisors' comments dealing with supervision focused on teaching in 75.3% of their journal lines. Further examination of this category revealed that both cooperating teachers and university supervisors made general evaluative statements about the student teacher most often. Following these general statements their specific concerns dealt with the student teachers' ability to manage pupils' behavior, student teachers' lesson delivery and the student teachers' ability to write lesson plans.

When student teachers' journals were examined for comments dealing with supervision, 45.8% of their journal lines were devoted to general statements about their personal relationships with their cooperating teacher. On the other hand, cooperating teachers were least concerned with personal relationships. Only 8.6% of their journal lines dealing with supervision were devoted to the personal relationship with their student teacher. University supervisors were least concerned with the protocols of student teaching. Only 4.1% of their journal lines devoted to supervision dealt with protocols. Student teachers, like university supervisors, were least concerned about the

Table 6.9
Content Data from Journals
Percentage of Journal Lines Devoted to Topic by Participant

	Teaching	Protocols of Student Teaching	Personal Relationships	Other
Cooperating Teachers	62.6%	21.1%	8.6%	7.9%
Student Teachers	24.3%	19.6%	45.8%	10.3%
University Supervisors	75.3%	4.1%	11.3%	9.3%

protocols of student teaching. Approximately 20% of their journal lines dealing with supervision focused on the protocols of student teaching. In addition to journal data, interview data was also analyzed in an attempt to determine participants' supervisory concerns.

Interviews

Interview questions and answers were classified according to the same five categories as the journal data: (1) Background, (2) Teaching, (3) Supervision, (4) Goals, Expectations and Ideals and (5) Context. The following section will explore the interview data found in the Supervision category and attempt to further determine participants' perceptions of supervision and formative evaluation. Again all three participants' (i.e., cooperating teachers', student teachers', university supervisors') concerns were reported.

Of the 20 student teachers who were asked whether or not they were satisfied with their student teaching experience, 18 reported yes, 1 said no and 1 did not choose to answer. When asked to express why they were satisfied with the experience 14 stated that their satisfaction was directly related to their cooperating teachers' experience and knowledge. Four explained satisfaction as a result of the context of the classroom situation (i.e., classroom size, resources available, and good students). In addition, 13 reported an "excellent" relationship with their cooperating teachers and 6 reported a "good" relationship with the cooperating teachers. These student teachers based this opinion, in part, on their cooperating teachers' supervisory skills. Such qualities as constructive criticism, high expectations, a willingness to share ideas and a collegial rapport were mentioned as reasons for these excellent and good relationships.

On the other hand, student teachers felt their university supervisor could have been more helpful. Most student teachers reported a desire to be observed more frequently by their supervisors and at a variety of times during the teaching day. In addition, student teachers felt that the amount of time supervisors had observed had not provided them with an accurate indication of their teaching abilities. A few student teachers expected their supervisors to be more in touch with the classroom, give more demonstrations and state their expectations more clearly. Student teachers, for the most part, did feel their supervisors were helpful in providing ideas and resources. If problems arose in the classroom most student teachers reported that they would turn to their supervisors first for help.

When cooperating teachers were asked to describe the primary responsibility associated with their role most reported that they wanted to give the student teacher a "good experience." They defined a good experience as one in which the student teacher learned to be confident about her/his teaching through effective control of the classroom and effective teaching methodology.

Cooperating teachers were asked to expand this notion of "effectiveness" and describe exactly what they focused on when supervising the student teacher. Most mentioned lesson plans, time management, behavior management and material preparation. One cooperating teacher focused on what the students were learning.

When university supervisors were asked what qualities constituted a good university supervisor most reported interpersonal communication skills as crucial. Such statements as "one must like people," "be willing to listen", "communicate well", "be a good observer" were mentioned repeatedly. In addition, most university supervisors viewed their responsibilities to the student teachers and cooperating teachers differently.

With student teachers, university supervisors assumed an almost contradictory role of evaluator and caretaker. On the one hand they wanted to be the student teacher's "security blanket" and "middle man." On the other hand they knew they must ultimately evaluate this person's work. Responsibilities to cooperating teachers included such things as communicating the importance of planning and meeting the needs of the individual student teacher.

In addition, university supervisors were asked to describe what they focused on when they observed their student teachers. Most supervisors reported a concern with behavior management, teaching skills and lesson delivery. Two supervisors focused on whether or not pupils were learning.

Discussion

Participant's perceptions of supervision and formative evaluation were extracted from journal and interview data. These perceptions will now be compared to actual supervisory and evaluative incidences, i.e. the student teacher/cooperating teacher conferences.

Cooperating teachers' perceptions of supervision and the formative evaluation of the student teacher appear consistent with what actually occurred in the supervisory conference. Cooperating teachers' journals were similar to those of the university supervisors in that they reflected a concern for their student teachers' capabilities in behavior management, lesson planning, and lesson delivery. When cooperating teachers were asked in situations what their primary responsibilities were, they said they wanted to guide student teachers to become effective, competent instructors. This notion of effectiveness included competence in lesson planning, time management, behavior management and in material preparation. University supervisors expressed similar concerns.

When the content of conferences was examined it was noted that cooperating teachers were indeed interested in explaining to their student teacher how to teach. They commented most often on classroom teaching events. These comments were specific in nature, usually focusing on an immediate classroom situation. In addition cooperating teachers spoke of the materials and methods involved in teaching. When their comments were classified according to instructional domain, it was noted that the cognitive domain was focused upon most often.

Therefore, in many ways the concerns of cooperating teachers, as noted throughout their individual journals and interviews, were reflected in the formative evaluation and supervision of their student teachers. Cooperating teachers appear to be concerned with telling student teachers how to teach.

Student teachers' concerns, however, were quite different and may not have coincided with what actually occurred during supervisory conferences. Both the journals and individual interviews of student teachers showed a dominant concern with personal and professional relationshjps with their cooperating teachers. While journals comments were, for the most part, of a general nature, the interviews provided more insight into what constituted a "good" relationship. Such supervisory skills as offering constructive criticism, establishing high expectations, a willingness to share materials and ideas and a collegial rapport were accredited for having solidified the student teacher/cooperating teachers' relationship. Conversely, student teachers felt that university supervisors remained out of touch with their individual classroom situations throughout the semester.

When the process of conferences was examined, it was noted that student teachers rarely participated in most interactions. When they did participate, 24% of their comments were acknowledgements, (e.g. "yes", "OK", "fine", etc.). Such interactions might better typify a teacher-student relationship rather than one exemplifying collegiality. Because good personal relationships were important to the student teachers, it is possible that being "seen but not heard" in a conference was safer than making a substantial comment that might be viewed as incorrect or in direct disagreement with their cooperating teachers.

University supervisors stated that good interpersonal skills were crucial for effective supervision. When asked to define these skills, supervisors listed the ability to like people, being willing to listen, and being kind, understanding and positive as some of the required qualities. Such concerns may have influenced to some degree how student teachers viewed relationships within their individual triads.

Summary

Cooperating teachers and student teachers had different perceptions regarding formative evaluation and supervision. Whereas cooperating teachers were concerned with telling student teachers how to teach, with regard to planning, preparation and management, student teachers were more interested in getting along well with their cooperating teachers. Cooperating teachers' participation in conferences reflected, for the most part, their concerns with supervision and formative evaluation mentioned in their journals. When the content of cooperating teachers' conference talk was analyzed, results indicated that they spent time commenting to their student teachers about specific classroom incidents, about the materials and methods involved in teaching and were concerned, for the most part, with the cognitive instructional domain. Student teachers were most concerned with their personal relationships with their cooperating teachers. Conference data indicated that student teachers participated to a minimal degree and offered few substantive statements.

Conclusion

The following section will summarize findings associated with individual participants, draw conclusions with regard to those findings, discuss implications for teacher education, and make recommendations for future investigations.

Discussion of Findings

When the process of cooperating teachers' talk was analyzed, it was noted that few evaluative remarks were made. Instead, cooperating teachers tended to describe and explain teaching. Furthermore, the content of cooperating teachers' conference talk primarily concerned how to use certain materials and methods in specific circumstances. The cognitive domain was focused on more than any other instructional domain. Cooperating teachers' perceptions of their roles as supervisors indicated a concern for guiding student teachers toward competence in classroom management, lesson planning, and lesson delivery, consistent with some of the university protocols. Protocols focused on cooperating teachers' responsibilities to student teachers. These responsibilities included maintaining a professional partnership with student teachers, helping student teachers to become effective classroom managers and instructors and evaluating the student teachers' performance.

There are numerous possible explanations for the cooperating teachers' lack of evaluative statements during conferences. At State University cooperating teachers were told to place the burden of formative evaluation on the student teacher. The university's philosophy regarding evaluation was that student teachers must learn to evaluate their own work. Therefore, those who supervised student teachers were instructed to provide opportunities for self-assessment. The cooperating teachers at Metropolitan University may have been operating under the same premise, even though it was not an explicitly stated responsibility.

Secondly, the method of data collection may have been threatening to both participants. Because all conferences were audio taped, cooperating teachers may have felt uncomfortable providing any sort of negative feedback and therefore left out evaluative remarks.

A third possibility is that cooperating teachers found themselves in a most difficult role. As supervisors of student teachers they must assume a role of teacher and evaluator as well as that of professional colleague. Perhaps talking about teaching was a way of implicitly telling student teachers what they viewed as quality instruction, therefore relieving the burden of evaluation.

In addition to the lack of evaluative remarks, cooperating teachers tended to focus on how to use specific materials and methods in immediate classroom situations. Little or no talk focused on underlying philosophies or ultimate goals for children. Listening to conferences, one felt that cooperating teachers were describing for student teachers a "cookbook" approach to learning and instruction. However, some see all instruction as theoretically based, albeit not explicitly stated (Harste and Burke, 1977). Teachers may have been implicitly communicating to student teachers their instructional goals and underlying philosophies.

With regard to student teachers, conference behavior and concerns elicited from journals and interviews were also examined. When the process of student teachers' conference talk was examined, it was noted that student teachers did not participate as often as cooperating teachers. In fact, cooperating teachers dominated over 70% of all conference talk. When student teachers did talk, 32% of their statements were classified as dealing with classroom events, and 24% of their statements were classified as acknowledgements, containing little, if any, content. Student teachers' perceptions of supervision and formative evaluation, as determined through a content analysis of journal and interview data, showed a predominant concern with the good personal relationships between themselves and their cooperating teachers. When questioned as to why they felt their relationships with their cooperating teachers were good, most stated that their teachers shared ideas, offered constructive criticism, held high expectations for them and maintained a collegial rapport with them. Conferences, however, showed that cooperating teachers offered few evaluative statements and dominated most interactions.

Again numerous possible explanations exist for the discrepancy between student teachers' perceptions of supervision and formative evaluation and the occurrence of supervision and formative evaluation during the conferences. A few will be discussed here.

First, if student teachers viewed their cooperating teachers as evaluators, to say little during conferences would have been safer than offering comments that may have been either incorrect or in direct disagreement with their cooperating teachers. A second explanation may have been that their knowledge of what constitutes an effective relationship colored how they perceived their relationship with their cooperating teachers. For example, they knew a good cooperating teacher-student teacher relationship should be one where constructive criticism is offered, where high expectations are sought, and where a collegial rapport exists. Student teachers felt their relationships with their cooperating teachers were good; thus a priori judgment may have influenced their reports. Finally, student teacher-cooperating teacher relationships extended well beyond their conferences. Qualities enumerated by the student teacher may have, in fact, been present throughout other interactions.

In addition, journal and interview data analysis revealed a lack of concern on the part of student teachers with how their instruction might or might not be impacting students. In fact, when making evaluative statements about their teaching, no student teacher commented on the effectiveness of their lesson in terms of what pupils may have learned. One possible explanation lies with the quantitative findings of this study. When results from the Teacher Concerns Questionnaire (Fuller, 1969) were examined, student teachers were most concerned with self (as opposed to concerned with teaching tasks and the impact of teaching on students) throughout the course of the semester. Also, cooperating teachers and university supervisors did not report concerns with the student teachers' impact on students. One possible explanation for this lack of stated concern could be that the importance of instructional impact was assumed. Perhaps no problems existed with regard to the impact of instruction and therefore it was not mentioned.

Implications for Teacher Training

In light of these findings it seems prudent to offer three recommendations for the training of student teachers. First student teachers are naive consumers. To offer them information in an implicit fashion may not guarantee their comprehension of that information. Those who supervise student teachers may therefore want to be more explicit with regard to their goals for students as well as the philosophy which underlies their chosen mode of instruction. In addition, cooperating teachers and supervisors may want to provide student teachers with less situation-specific information and explicitly state their ultimate goals for pupils. Because these future teachers may teach in a very different context from the one in which they received their training, highly specific information may be of little use to them. Secondly, those who conference with student teachers should be sensitive to their reluctance to participate. Because communication is central to instruction, cooperating teachers and university supervisors may want to elicit more conference participation from student teachers to determine if they have in fact comprehended the information being provided. Finally, supervisors of student teachers may want to clarify their specific expectations. Whether they are to serve as evaluators of the student teacher's performance or promote the skill of self-evaluation in student teachers, their charge must know what they view as effective instruction and why. Such information could only serve to help student teachers become more knowledgeable as they go about selecting instructional methods and materials suited to their own needs.

Recommendations for Future Study

Findings from this study revealed that (1) cooperating teachers were concerned with imparting knowledge to student teachers about the specific methods and materials of instruction, (2) student teachers were most concerned with their personal relationship with their cooperating teacher and (3) cooperating teachers tended to dominate supervisory interactions with their student teachers. Questions therefore remain regarding the training of student teachers.

Knowles (1973) felt that adults as learners must be treated differently in an educational setting. Cooperating teachers are in fact dealing with adult learners as they go about the business of training student teachers. Would the supervision and formative evaluation of student teaching be significantly changed if cooperating teachers built their supervision around adult learning theory?

In addition, sensitivity to the concerns of the student teacher might alter how one goes about formative evaluation and supervision. Fuller's (1969) concerns theory stated that early in their careers teachers are initially concerned with self protection and consolidation. Later their concerns shift to the task demands of their jobs and as they mature professionally their concerns focus on the impact of their instruction on students. According to their perceptions of supervision reported in journals and interviews, student teachers in the study were operating at a self-concerns level, while teachers appeared more concerned with the tasks of teaching. If cooperating teachers were made aware of the levels of concern model, how might this affect their supervision and formative evaluation style?

Chapter Summary

This chapter described the supervision and formative evaluation that took place during cooperating teacher-student teacher conferences. The content of these conferences was then compared to those university protocols regarding the supervision and formative evaluation of student teachers to determine congruence of the two. Interview and journal data were then gleaned for remarks dealing with supervision and formative evaluation. These remarks were considered as participants perceptions of and concerns with supervision and formative evaluation and were also compared to conferences to determine congruence. Finally, conclusions were drawn from these findings and hypotheses were suggested for future study.

CHAPTER 7

OUTCOMES OF THE STUDENT TEACHING EXPERIENCE

Several outcomes may result from the student teaching experience. For example, the participants are thought to have sufficient knowledge of each others' work to make some judgments about the quality of that work; the student teacher finds him/herself more or less satisfied with the experience; and so on. There is also the matter of receiving university credit for the clinical preservice experience, typically a function of the student teacher's final evaluation. Because the intent of the RITE study was to describe as completely as possible the nature of the student teaching experience, these outcomes were studied. Thus, the present chapter will discuss findings pertaining to such outcomes of student teaching as performance ratings across role groups in the student teaching triads, final evaluations of student teachers, student teacher satisfaction, and the degree to which the participants' expectations of the student teaching experience were met. First, descriptive statistics of each outcome measure will be presented and discussed; then, correlational data describing interrelationships among outcome measures, and relationships between outcomes and entry characteristics or change in entry characteristics will be discussed; finally, several inferential statistical analyses of outcome measures will be presented and discussed. Possible implications for the practice of teacher education will be drawn throughout the chapter.

Descriptive Statistics

Student teacher satisfaction. As discussed in Chapter 4, the Student Teacher Satisfaction Scale is composed of 22 Likert-type items generated from craft knowledge, interviews, and literature reviews. The student teachers' overall mean (Table 7.1), reflects a high level of satisfaction with the student teaching experience. Furthermore, the mean satisfaction scores for student teachers at each site (State University/Lakeview vs. Metropolitan University/Urban) and in each sample (Intensive vs. General) indicate no substantial difference on reported satisfaction as a function of these two factors (Table 7.2). As reported in the section on inferential statistics, this observation was confirmed by a 2 x 2 analysis of variance (site by sample).

Expectations of student teachers, cooperating teachers, and university supervisors. As noted in Chapter 4, Likert-type items for the expectations questionnaires were generated from a content analysis of initial interviews conducted with student teachers, cooperating teachers, and university supervisors. Separate questionnaires were developed for each role. Thus, the measures are not comparable across roles. The items of the student teacher questionnaire were scored from 1 to 5, with 1 indicating that expectations were definitely exceeded; 5, that expectations were definitely not met. The items were grouped into three subscales: Orientation to Teaching, Teaching Competence, and Time Spent in Teaching Activities. The mean scores on each of these subscales are well below the midpoint, indicating that the student teachers expectations in each of these areas were exceeded (Table 7.1). They found the experience more to their liking and found themselves better prepared than they expected (Orientation). They reported that they were more competent than expected (Competence). Finally, they reported that they spent more time in teacher-related activities than expected. As can be seen from Table 7.2 there were not substantial differences due to site (State/Lakeview vs. Metropolitan/Urban). However, with regard to sample differences, intensive sample student teachers reported that their expectations regarding orientation

Table 7.1

Expectations and Satisfaction of Student Teaching

Instruments	Scale Characteristics				
	Mean	Standard Deviation	Possible Range of Scores	Mid Point	N
Expectations					
Student Teacher					
Orientation*	15.45	3.84	6-30	18	84
Competence*	10.43	3.72	5-25	15	84
Time*	31.87	6.42	12-60	36	84
Cooperating Teacher	50.89	11.61	17-85	51	85
University Supervisor	29.35	5.96	11-55	33	17
Satisfaction					
Student Teacher	90.72	12.01	22-110	66	88

*Items scored 1-5 with 1 = expectations exceeded; 5 = expectations not met.

Table 7.2

Means and Standard Deviations of Student Teacher, Cooperating Teacher, University Supervisor Expectation Scales, and Student Teacher Satisfaction Scale by Site and Sample

	Possible Range	SU $\bar{X}$	SU s.d.	MU $\bar{X}$	MU s.d.	Intensive Sample $\bar{X}$	Intensive Sample s.d.	General Sample $\bar{X}$	General Sample s.d.
Student Teacher Expectations									
Orientation*	6-30	15.40	3.92	15.51	3.79	17.11	2.97	15.00	3.94
Competence*	5-25	10.05	3.59	10.83	3.85	12.06	3.12	9.99	3.77
Time*	12-60	31.07	4.71	32.71	2.80	32.33	4.69	31.74	6.84
Cooperating Teacher Expectations	17-85	52.15	12.12	49.73	11.14	51.15	12.01	50.82	11.58
University Supervisor Expectations	11-55	30.54	5.81	25.50	5.32	28.33	5.68	30.50	6.44
Student Teacher Satisfaction	22-110	91.67	11.06	89.80	12.92	88.65	10.91	91.32	12.34

*Items scored in reverse.

and competence were met rather than exceeded. These observations were confirmed by analysis of variance.

The cooperating teacher expectations questionnaire consisted of 17 items which were scored as a single scale. The mean score falls close to the midpoint, indicating that the cooperating teachers' initial expectations were met, though not exceeded (Table 7.1). Due to their more extensive classroom experience, it stands to reason that their expectations would be more congruent with their subsequent experience than those of the student teachers with theirs. There were no substantial differences in cooperating teachers expectations due to site or sample effects (Table 7.2). This observation was confirmed by analysis of variance.

The university supervisor expectations questionnaire consisted of eleven items which were scored as a single scale. As with the cooperating teachers, their mean score falls close to the midpoint of the scale (Table 7.1), indicating congruence between their initial expectations and their subsequent experience. Since most of the supervisors had had previous classroom experience as well as supervisory experience, it, too, stands to reason that there would be greater congruence between their expectations and experience than between those of the student teachers and their experiences. As with the cooperating teachers, there were no substantial differences between the university supervisors' expectations scores due to site or sample effects (Table 7.2). This observation was also confirmed by analysis of variance.

While it is interesting to speculate on the increased congruence of expectations and experience from student teachers to cooperating teachers and university supervisors, we can do little more than that at this point. Not only are the domains of expectations different for each role group, as we would logically expect them to be, but we do not have an indicator of their initial level of expectations. Thus, when student teachers report exceeded expectations and cooperating teachers report met expectations, we do not know whether the student teachers had low expectations that were easily exceeded by their experience and the cooperating teachers had moderately high expectations that were just met but not exceeded by their experience, or whether they had the same levels of expectations initially and the student teachers' experience was simply more positive than that of the cooperating teachers. Unfortunately, we cannot resolve these issues with the data from the questionnaires. However, in this study we empirically identified various expectations from which we can now construct a measure of entry-level intensity for future investigations. Further refinement of the current instruments, clarification of tentative norms, and standardization of scores can also proceed.

Performance ratings of student teachers, cooperating teachers, and university supervisors. As explained in Chapter 4, each member of each triad was rated by the other two members of the triad, as well as by him or herself. For example, the student teachers would rate their own performances as student teachers, and their respective cooperating teachers and university supervisors would rate them as well. The rating forms were adapted to the perspective of each role, but aside from this, were parallel. Thus, each student teacher's performance was rated from three perspectives. The performances of the cooperating teachers and university supervisors were rated in a similar fashion.

As indicated in Table 7.3, the mean performance ratings were at the top end of the scale. These results may indicate that a wider scale should be used to allow for greater discrimination. However, use of five-point scales is still standard practice, as evidenced by the official final evaluation forms from both sites. In the following section on correlational results it is shown that the performance rating scales and the final evaluation forms are highly correlated. The self-ratings were higher than the performance ratings by the two other members of each triad in all role groups (Table 7.3). Although it appears that cooperating teachers in the intensive sample were rated more highly than those in the general sample by their respective university supervisors, the difference was not significant according to the hierarchical analyses of variance discussed later. This can probably be attributed to the relatively low _n_ of general sample ratings by university supervisors. Recall that Metropolitan University supervisors rated only their intensive sample cooperating teachers. Furthermore, the Metropolitan supervisors not only rated their cooperating teachers but also had nominated them to be in the intensive sample in the first place. Thus, we would expect higher ratings of the intensive sample cooperating teachers by the Metropolitan supervisors which in turn would tend to inflate the mean of all of the ratings of intensive cooperating teachers by their university supervisors. It appears, then, that the apparent differences in performance ratings is simply an artifact of the research design and would be so even if the difference were significant. Student teachers were rated about equally by their university supervisors and their cooperating teachers, as were cooperating teachers by their student teachers and university supervisors. In contrast to this pattern, however, university supervisors were rated more favorably by their cooperating teachers than by their student teachers. It may be that the cooperating teachers and student teachers employ different standards. This is a reasonable explanation, given the very different role of each and should be borne in mind when considering the evaluations of one group

Table 7.3

Means and Standard Deviations of Performance Ratings

	Possible Range	SU $\bar{X}$	SU s.d.	MU $\bar{X}$	MU s.d.	Intensive Sample $\bar{X}$	Intensive Sample s.d.	General Sample $\bar{X}$	General Sample s.d.
CT self-ratings	1-5	4.51	.34	4.68	.35	4.62	.33	4.59	.36
CT ratings by STs	1-5	4.15	.97	4.29	.73	4.29	.91	4.20	.84
CT ratings by USs	1-5	3.94	.87	4.76	.27	4.54	.47	3.61	.99
ST self-ratings	1-5	4.42	.36	4.30	.43	4.28	.36	4.38	.41
ST ratings by CTs	1-5	4.03	.72	3.96	.66	4.00	.68	3.99	.69
ST ratings by USs	1-5	4.00	.67	4.54	.20	4.23	.53	4.00	.73
US self-ratings	1-5	4.49	.27	4.64	.32	4.47	.33	4.57	.21
US ratings by STs	1-5	4.04	.55	3.90	.55	3.84	.38	4.20	.64
US ratings by CTs	1-5	4.19	.48	4.31	.85	4.26	.39	4.20	.53

by another. These observed differences were confirmed by subsequent analysis of variance.

Final Evaluations. Another outcome of the student teaching experience was the final evaluation of student teachers by their supervisors and cooperating teachers. It is typically the final hurdle which student teachers must pass prior to applying for certification; thus, several questions about student teachers' final evaluations were asked. Foremost were two questions: (1) what formal processes and guidelines had been established by participating universities for this purpose, and (2) what did completed evaluations look like?

The first question about the formal processes and guidelines vis-a-vis final evaluations was addressed in an earlier report (Defino, et al., Note 11) and reviewed in chapters 2 and 3 of this one. Each university published guidelines which stipulated who should complete the evaluation forms provided by the institutions, what should be done with them once completed (e.g., copies sent to placement offices; student teacher signatures), and so on. Both institutions in the study agreed to share with the RITE staff copies of the participating student teachers' completed evaluation forms (the reader is reminded that every possible precaution was taken to protect the anonymity of all participants).

The forms consisted, at both sites, of a series of five-point Likert-type items with blank spaces provided for comments to elaborate upon them (24 rating items on the Metropolitan University form, 11 on the State University form; see Figure 7.1). For purposes of the present analysis and discussion, the items on each form were grouped to create two parallel sets of subscales (Metropolitan's were already grouped; those on the State University form were similarly grouped by the authors--no factor analysis was performed). Thus,

	Metropolitan University	State University
Personal Qualities	1. Effective communication skills	1. Communicates effectively with adults and students
	2. Appearance - poise - self-control - professional - dress - voice and speech patterns	2. (No information requested regarding appearance on elementary form. Secondary form asks if student teacher is clean and well groomed)
	3. Attitude (profits from feedback)	3. Attitudes - seeks professional growth - accepts and uses suggestions - acknowledges divergent views - sense of humor
Instructional Competencies	1. Planning - daily and long term planning - pupil oriented curriculum - organizes environment - diagnoses pupil needs and relates them to objectives	1. Planning - chooses curriculum and method based on pupil need - organizes environment - plans appropriate curriculum
	2. Effective implementation of lessons - presented clearly - flexible - creative	2. Effective implementation of lessons
	3. Evaluation of students - pupils grow relative to capabilities - student teacher is a self-evaluator	3. Evaluation of students
Behavioral Management	1. Effective behavioral management	1. Effective behavioral management

Figure 7.1 Final Evaluation Forms

five items on the State University form were labeled the "Teaching Competency" subscale, as were 11 similar items on the Metropolitan University form. Some examples are: "Demonstrated skillful implementation of learning plans," "Presents lessons clearly and effectively," or "Demonstrated skillful choices of instructional methods based on children's needs and interests." Ten other items on the Metropolitan University form were labeled the "Professional Competency" subscale, as were four apparently similar items on the State University evaluation form. Examples of the items included here are "Demonstrated ability to profit from feedback," "Attends to schedules and commitments," or "Handles situations with poise, self-control." The remaining items on the Metropolitan form pertained to the students teacher's "Personal Characteristics," and the remaining item on the State University form required an overall judgment of the student teacher.

A variety of descriptive statistics was calculated on the mean ratings given the student teachers on parallel subscales of the evaluations. For instance, the grand means (calculated across mean ratings for student teachers in both the intensive and general sample, at both Metropolitan and State Universities) are reported in Table 7.4, together with other descriptive statistics of the total sample. As evidenced by the table, there was little variability in the evaluation ratings given to student teachers, and it should be noted that the means were high for having been made on five-point scales. This is more pronounced for the Professional Competency subscale than it is for the Teaching Competency subscale, however. Note also the degree of kurtosis and negative skewness which characterized the distributions.

Some comments are in order here. The verbal explanations appended to the numeric continua on each institution's forms are different: for State University, a rating of five is intended to represent a "high degree of

Table 7.4

Descriptive Statistics for Student Teachers' Mean Ratings on Their Final Evaluations[1]

Subscale	Grand Mean	Standard Deviation	Kurtosis	Skewness
Teaching Competency	4.251	.901	7.137	-2.276
Professional Competency	4.448	.840	12.396	-3.107

[1] All evaluations were made on five-point Likert-type rating scales.

excellence" while one is "unsatisfactory;" the same numerical ratings on the Metropolitan University form are equated with "consistently" and "rarely." It is therefore clearly arguable that two distinct dimensions may underlie the rating continua, and this renders comparison of the data from the two rating forms extremely difficult. Other questions for the research and teaching communities can be raised in view of the uniformly high means observed on student teachers' final evaluations. First is the general issue of comparability of ratings across various teacher education institutions, or, when is an "A" really and "A"? What does a high rating at any given institution mean, particularly in terms of teaching quality. It would seem possible that the lack of agreed-upon, codified knowledge base (Griffin, et al., Note 1) may be contributing to this problem.

A second, related issue is that of so-called "grade inflation." The reader will note that one of the institutions specifically cautioned its supervisors against assigning inflated ratings to student teachers (Defino, et al., Note 11), and the site differences was in a direction consistent with this recommendation (i.e., the State University mean was significantly lower). Thus, it is possible to ask again: (1) are supervisors and cooperating teachers generally prone to a positive response bias in evaluating student teachers; (2) why might this be the case; (3) what are the effects of inflated ratings upon the individuals being rated, upon the rater (e.g., whose interests are being rewarded with the high ratings), and upon the profession as a whole (how well is quality control being served); and (4) how might this tendency be altered, if it ought to be? All of these have serious implications for practitioners in teacher education, and warrant further research.

Summary. Four possible outcomes of the student teaching experience were assessed and statistically descriptive findings were presented. It was observed that the outcome of student teacher satisfaction was generally high, i.e., student teachers in this study were typically pleased with their preservice clinical experiences. Secondly, student teachers reported that their expectations for the experience tended to be met or exceeded. Although they had spent somewhat more time on student teaching than they expected, student teachers also felt that they generally had met the challenges of the classroom better than they had anticipated. The performance ratings were also high across role groups. There was some evidence that cooperating teachers and student teachers employed different standards in their assessments of the university supervisors. Fourth and last, student teachers' final evaluation ratings were found to be high and characterized by less variability than one might ordinarily expect. Implications of these several findings for practitioners were discussed.

Correlational Data

Because of the unusual opportunity which this study afforded the RITE staff to assess multiple outcomes of the preservice clinical experience, some investigation of their relation to each other was necessary. It was felt that moderate but positive associations across the various outcome measures would provide a partial indication of convergent validity. Secondly, a determination of whether or not entry characteristics of student teachers were associated with any of the RITE outcome measures was desired as a further indication of their utility (i.e., was it reasonable to assume that "better prepared" student teachers would receive higher performance ratings, be more satisfied, etc.). Third, the question of whether or not changes in student teachers' entry characteristics were associated with the RITE outcome measures was investigated. Each of these sets of correlational data will be reviewed and discussed next.

Intercorrelations among outcome measures. Due to the lack of variability in the reported outcome measures, correlation coefficients of magnitude (e.g., $r = .40$) were not expected to result and indeed did not occur. Pearson product-moment correlation coefficients were calculated between the two subscales of the final evaluation forms and scores on other instruments intended to assess the outcomes of student teaching, specifically the Student Teaching Satisfaction scale, the Student Teaching Expectations subscales, and the Student Teacher Performance Ratings. The resulting correlation matrices are portrayed in Tables 7.5. 7.6, and 7.7, respectively.

Several statistically significant findings were obtained. The Student Teaching Satisfaction scale was a self-report instrument, while the student teachers' final evaluation forms were completed by the supervisors and cooperating teachers. The correlation matrix for these scores is shown in Table 7.5. While they appear to have only moderate values (on the order of .34), the sample size strengthened the correlations to a high level of significance; $p = .001$ in all cases.

Significant correlations were obtained also between the Student Teaching Expectations subscales and the final evaluations. The Expectations subscales consisted of a series of Likert-type self-report items, upon which student teachers rated the degree of match between their prior expectations and their perceptions of the actual experience (1 = "Much more than I expected," 5 = "Much less than I expected"). Thus, the negative correlations displayed in Table 7.6 reflect an association between high evaluation ratings and student teachers' feelings that their expectations were met or surpassed. Most of the correlations were not as strong as those in Table 7.5, and none of the

Table 7.5

Correlations between Student Teaching Satisfaction Scores and Supervisor or Cooperating Teacher Mean Final Evaluation Ratings of Student Teachers

	University Supervisors		Cooperating Teachers	
	Teaching Competency Subscale	Professional Competency Subscale	Teaching Competency Subscale	Professional Competency Subscale
Student Teachers' Satisfaction	.3186** (N = 87)	.3529** (N = 87)	.3494** (N = 86)	.3514** (N = 86)

** $p = .001$

Table 7.6

Correlations between Student Teaching Expectations Subscale Scores and Supervisor or Cooperating Teacher Mean Final Evaluation Ratings of Student Teachers[1]

	University Supervisors		Cooperating Teachers	
	Teaching Competency Subscale	Professional Competency Subscale	Teaching Competency Subscale	Professional Competency Subscale
Orientation to the Professional	-.2460** (N = 81)	-.2207* (N = 81)	-.2687** (N = 80)	-.1909* (N = 80)
Competence	-.2982** (N = 81)	-.3050** (N = 81)	-.3450** (N = 80)	-.3149** (N = 80)
Time	-.1643 (N = 81)	-.1011 (N = 81)	-.1400 (N = 80)	-.1646 (N = 80)
Value of Prior Courses	-.2643** (N = 81)	-.2569** (N = 81)	-.1871** (N = 80)	-.1304 (N = 80)
Plan to Teach	-.0311 (N = 77)	-.1051 (N = 77)	-.1566 (N = 76)	-.1750 (N = 76)

 * $p < .05$
** $p < .01$

[1] Note that the Expectations Subscales were scored in a reverse manner.

Table 7.7

Correlations between Student Teaching Performance Ratings by Self, Supervisor, and Cooperating Teacher, with Supervisor or Cooperating Teacher Mean Final Evaluation Ratings of Student Teachers

	University Supervisors		Cooperating Teachers	
	Teaching Competency Subscale	Professional Competency Subscale	Teaching Competency Subscale	Professional Competency Subscale
Self-Ratings of Performance	.3662** (N = 83)	.3613** (N = 83)	.4389** (N = 82)	.4330** (N = 82)
Supervisors' Ratings of ST Performance	.4920** (N = 32)	.5718** (N = 32)	.4864** (N = 31)	.4266** (N = 31)
Cooperating Teacher Ratings of ST Performance	.5580** (N = 76)	.6666** (N = 76)	.7432** (N = 76)	.7365** (N = 76)

** $p < .01$

correlations for the "Time" subscale or the "Plan to Teach" subscale were significant.

The correlations reported in Table 7.7, between the final evaluation ratings assigned student teachers by their cooperating teachers and university supervisors, and the performance ratings of student teachers made by themselves, their supervisors, and their cooperating teachers, were all highly significant. The Performance Rating instrument consisted of 29 Likert-type items, roughly half of which were stated negatively in an attempt to avoid creation of a response set on the part of the raters. The correlation coefficients were the largest in magnitude of any calculated on outcome measures, in addition to having been consistently statistically significant.

Several comments may be offered in examining all of these results. First of all, the Satisfaction-Evaluation correlations seem to confirm the common sense opinion that people like or are satisfied with experiences where they perceive themselves as being successful. In this case, a major basis for the student teachers' belief in personal success may have occurred in the form of receiving high evaluation ratings from supervisors and cooperating teachers. Similarly, if a student teacher received low ratings, one could reasonably expect that person to report having been less satisfied with the experience than his/her more successful peers.

Expectations regarding time appear unrelated to the final evaluation ratings. Raw amounts of time spent in preparation or planning for any task may not be related to the successful completion of the task; one must consider other factors such as how efficiently or effectively that time was used. Also, the items on this particular subscale examined whether or not student teachers put in as much time as they had expected to; it could be that all of them were surprised by the time demands, but that more successful student teachers were better able to meet the demands than were student teachers receiving lower ratings.

The other Expectations subscale which failed to correlate significantly across the board was a single item, "yes/no" question asking whether or not the student teachers planned to teach upon completion of degree and certification requirements. Nearly all of the student teachers in the sample responded positively to this item. Because of this clear lack of variability, there was little reason to expect that correlation coefficients of any magnitude would result. Also, because no means of assessing how many student teachers had acted upon this intention was available, there was no way to ascertain the operation of a Hawthorne effect in their responses.

The remaining significant Expectations subscale correlations with final evaluation ratings supplement the picture of evaluative consistency revealed thus far. Just as Student Teaching Satisfaction self-report scores showed a strong positive correlation with the evaluations, so did the "Orientation to the Profession" subscale scores (items pertained to whether or not student teachers had enjoyed their clinical experiences as much or more than expected). Paralleling the results on the Performance Self-Ratings, "Competence" subscale scores correlated highly with student teachers' final evaluations; items on the "Competence" subscale dealt with whether or not student teachers felt they instructed as well or better than they had expected. The remaining Expectations subscale examined the degree to which student teachers found their previous coursework to be helpful during the clinical experience ("Value of Prior Courses"). It was the only subscale which was inconsistent in its relationships with supervisor and cooperating teacher evaluation ratings. The correlations with the supervisors' ratings on both evaluation form subscales were significant, but not the correlation with the Professional Competency subscale ratings given by cooperating teachers. Reasons for this inconsistency are unclear, although one could argue that there need not be a strong relationship between professionalism per se and academics (the former perhaps relates more to social skills).

The final set of correlations which were significant related Performance Ratings of student teachers by themselves, their supervisors, and their cooperating teachers, to their final evaluations by supervisors and cooperating teachers. If one can assume that final evaluations are intended to reflect the adequacy of the student teachers' performance during the semester, then the findings are not at all unusual. Perhaps the most noteworthy aspect of these correlations is the magnitude (as opposed to statistical significance) of the coefficients, especially between the cooperating teachers' performance and evaluation ratings. As with the other correlations, the participants' consistent response tendency was notable.

In sum, it would appear that all four outcome measures for the student teaching experience are significantly and/or positively related to one another, as well as being subject to parallel response biases. The central issues which then emerge appear to be these: (1) teacher educators need to develop and/or utilize student teaching outcome measures which are capable of discriminating among student teachers of differing skill levels, or (2) teacher educators need to reconceptualize the nature and purpose of outcome measures such as final evaluations. In other words, assume for a moment that what is being termed a response bias, reflective of strong, global or undifferentiated "Good/Bad" views of the preservice clinical experience, may be a natural truth of sorts. That is, perhaps participants cannot and therefore should not be asked to make incremental judgments about what is essentially an "all-or-none" phenomenon. While this is pure speculation, it is a provocative thought. So, too, is the first issue, pertaining to development of measures sensitive enough to reflect individual differences in skill mastery. Perhaps there is an inherent conflict of interest faced by teacher educators which militates against any possibility of obtaining variability in student teacher evaluation ratings (e.g., if instructors--and the teacher education programs in general--have done their jobs, then this should be reflected in "good" ratings of student teachers). The fact that the tendency to employ limited ranges of rating scales holds true for all outcome measures, and not just university-developed evaluation forms, underscores the pervasiveness of evaluative rigidity, and leads one to question the purpose of the evaluations. If they are to serve a gate-keeping function for the profession, then they need to possess adequate discriminant power. If they are to serve as an "in-house" form of quality control, then incentives for honesty rather than undue self-reward must be built into the process.

Given this review of findings and discussion about the intercorrelations among outcome measures for the student teaching experience, some attention must be given to the possible relations between input and output. That is, correlations between entry characteristics of participants, their changes over time, and the participants' outcomes measures. These will be reported and discussed next.

Personal and professional characteristics and outcomes. One of the central questions in this study was the relationship between the professional and personal characteristics of the participants to various types of outcomes. In this section the relationship between personality, attitude, and cognitive measures will be examined in relation to the expectations, satisfaction, and performance ratings of each member of the student teaching triad. These relationships were examined in two ways; first, correlations were computed between the entry characteristics of the individuals and the outcomes; second, residual gain scores were computed to assess the degree of change that occurred during the semester, and these gain scores were correlated with the outcomes. By looking at the relationships of the entry characteristics with outcomes it is possible to answer the question: Are certain types of people who enter the student teaching experience more likely to experience certain levels of expectations, satisfaction, and performance? The analyses involving the change scores (residuals) and outcomes focus on the question: Are certain types of change related to certain levels of expectations, satisfaction, and performance? Answers to the first question have implications for selection, while answers to the second question have implications for the training and supervision process. The results of these analyses will be presented for each group: student teachers, cooperating teachers, and university supervisors.

As one examines the pattern of correlations (Table 7.8), across all of the student teachers' outcome measures, Empathy emerges as a consistent predictor of the various outcomes. Student teachers who initially rated themselves as highly empathic individuals were given high performance ratings by themselves as well as by the cooperating teachers and university supervisors. Empathy was also related to satisfaction, to spending more time than expected, and to feeling more confident than expected. Self-Esteem was also related to performance ratings by self and the university supervisor as well as to spending more time than expected and feeling more confident than expected.

These findings suggest that few of the student teachers' entry characteristics measured in the study are strongly related to whether their expectations were met, whether they were satisfied or whether their performance was rated highly. Except for Self-Esteem and Empathy, only

Table 7.8

Correlations of Entry Characteristics with Expectations, Satisfaction and Performance Ratings - Student Teachers

Entry Scores	Outcome Measures						
	Expectations			Satisfaction	Performance Ratings		
	Orientation	Competence	Time		Self	Cooperating Teacher	University Supervisor
Vocabulary						.27**	
Empathy		-.26**	-.28**	.25**	.48**	.19*	.34*
Locus of control							
Flexibility			-.26**		.22*		
Educational philosophy							.31*
Self concerns	-.36**	-.21*					
Task concerns	-.24**						
Impact concerns	-.38**	-.26**		.19*			
Self-esteem		-.24**	-.26**		.45**		.29*
Conceptual level		.20*		-.21*			

*p < .05
**p < .01

Teacher Concerns appear to show strong consistent patterns across outcomes. High entry-level concerns seem to be associated with exceeded expectations. Also, other than Empathy no variables were consistently related to the three different performance ratings, suggesting that those ratings may be based on rather inconsistent criteria between role groups.

Considering the relationships of residual scores to outcomes (Table 7.9), changes in Self-Esteem and Conceptual Level are related to the most outcome measures. The relationship of increasing Self-Esteem with positive orientation, satisfaction and performance suggests that the development of Self-Esteem may be an important objective for student teachers. While causal relationships cannot be established among these variables, the implication is that negative changes in Self-Esteem during student teaching are associated with less positive attitudes about teaching, suggesting the need to consider whether behavior differences among these student teachers exist and what factors contribute to improved Self-Esteem. The link between Conceptual Level changes and positive ratings of performance by both self and CT suggests the need to examine what factors contribute to Conceptual Level gain during student teaching.

The overall pattern among student teachers' characteristics in both Tables 7.8 and 7.9 indicated that these measures do have implications for both selection and supervision in student teaching. Also, the failure to find more positive relationships among variables that have previously been found to be related to teaching must lead both researchers and practitioners to a more careful analysis of the practices of student teaching and the factors that contribute to positive growth in student teachers.

Among cooperating teachers, there were no significant correlations between any of the entry variables and the expectations scale (Table 7.10).

Table 7.9

Correlations of Residual Scores with Expectations, Satisfaction and Performance Ratings - Student Teachers

Residual Gain Scores	Outcome Measures						
	Expectations			Satisfaction	Performance Ratings		
	Orientation	Competence	Time		Self	Cooperating Teacher	University Supervisor
Self concerns	-.17*						
Task concerns							
Impact concerns	-.20*						
Flexibility				.21*		.22*	
Locus of control	.24**						
Empathy					.24**	.24**	
Self-esteem	-.23*			.20*	.28**		
Educational philosophy							
Conceptual level	-.26**	-.25**			.20*	.21*	

*p < .05
**p < .01

That is, there was no relationship between personality, attitude, and cognitive measures and whether or not the expectations of the cooperating teacher were met.

In general, it appears that the cooperating teachers' ratings are related to few of the personality, attitude, and cognitive characteristics attended to in the present study. Aside from the strong negative relationship of Task concerns to their performance ratings by university supervisors, the entry characteristics relate only to the cooperating teachers' self-rating. Of these, only Empathy, Teacher Concerns, and Self-Esteem are related to their self-rating. This suggests that the cooperating teachers' ratings are perhaps more closely tied with specific types of supervisory and teaching behavior than with the entry characteristics studied here. As mentioned above, it appears that each group may be using rather different criteria in its ratings.

Similarly, there were relatively few relationships among cooperating teacher residual scores and their expectations or performance (Table 7.11). As might be expected, increases in Empathy and Self-Esteem were positively related to the cooperating teachers' self-ratings. Educational Preference was negatively related to the cooperating teachers' self-ratings, and to student teachers' ratings of their cooperating teachers. Flexibility was also negatively related to the student teachers' ratings of their cooperating teachers. Not surprisingly, positive change in Task concerns was also negatively related to the university supervisors' ratings of the cooperating teachers. The most surprising aspect of these results is that several of the correlations seem to be in the opposite direction of what might be intuitively expected. For example, one would expect student teachers to appreciate social flexibility and a progressive educational philosophy on the part of their cooperating teachers, however, this was not the case. Perhaps these negative

Table 7.10

Correlations of Entry Characteristics with Expectations and Performance Ratings - Cooperating Teachers

Entry Scores	Outcome Measures			
	Expectations	Performance Ratings		
		Self	Student Teachers	University Supervisors
Vocabulary				
Empathy		.24**		
Locus of control				
Flexibility				
Educational philosophy				
Self concerns		.20*		
Task concerns		.18*		-.33*
Impact concerns		.32**		
Self-esteem		.19*		
Conceptual level				

*p < .05
**p < .01

Table 7.11

Correlations of Residual Scores with Expectations and Performance Ratings - Cooperating Teachers

Residual Gain Scores	Outcome Measures			
		Performance Ratings		
	Expectations	Self	Student Teachers	University Supervisors
Self concerns				
Task concerns				-.38**
Impact concerns				
Flexibility			-.19*	
Locus of control				
Empathy		.27**		
Self-esteem		.31**		
Educational		-.17*	-.25**	
Conceptual level				

*p < .05

**p < .01

correlations reflect negative reactions on the part of the student teachers to what they perceive as lack of structure. Given their low Conceptual Level scores which indicate a high need for external structure, this is understandable. In addition, cooperating teachers' changes toward a more progressive Educational Preference are negatively related to their own performance ratings of themselves. Further exploration is needed to examine these findings. It is somewhat difficult to know how important some of these findings are since there has been little work examining changes in the behavior of cooperating teachers.

Many of the personality, cognitive and attitude variables showed little relationship to expectations or performance. Regardless of whether entry or change scores were used, there were few consistent predictors across the performance ratings by self, ST and US. Some of the findings suggest that cooperating teachers who view themselves as effective, initially had high levels of concern for Self, Task, and Impact. Again this suggests that these areas of concern often function together rather than sequentially, as hypothesized by Fuller's Concern Theory (1969). Both entry level and positive change in Empathy and Self-Esteem were correlated with self-rated performance, suggesting that these represent important criteria in the cooperating teachers' perception of their own teaching performance.

The entry scores of the university supervisors were also examined (Table 7.12). There were two significant correlations between expectations and both Locus of Control and Educational Preference. Those supervisors with more internal control and progressive educational philosophies were more likely to indicate that they had spent more time than they expected and that they had been less satisfied with the semester. Also, university supervisors with more progressive preference scores tended to give themselves lower ratings on

Table 7.12

Correlations of Entry Characteristics with Expectations and Performance Ratings - University Supervisors

Entry Scores	Outcome Measures			
		Performance Ratings		
	Expectations	Self	Cooperating Teachers	Student Teachers
Vocabulary				
Empathy			.54**	
Locus of Control	-.40*			.40*
Flexibility				
Educational philosophy	-.47*	-.64**		
Self concerns			.45*	
Task concerns				
Impact concerns			.50*	
Self-esteem			.50*	
Conceptual level				

*p < .05
**p < .01

performance; however, this was not the case for ratings given to them by the student teachers or the cooperating teachers.

Several of the entry characteristics were correlated with the university supervisors' performance ratings by the cooperating teachers. Both Empathy and Self-Esteem were correlated with ratings by the cooperating teacher. Also, Self and Impact concerns were related to the performance ratings. Internal Locus of Control was related to high performance ratings by the student teacher. These correlations provide some indications about the type of individual that is perceived as effective by the cooperating teacher. The Empathy and Self-Esteem correlations suggest that supervisors who are warm, yet confident of themselves, are considered by cooperating teachers as effective. Likewise, these individuals showed a high degree of Self and Impact concerns, at least initially. The small number of significant correlations with the self-ratings and the student teachers' ratings make these relationships more difficult to interpret.

The correlations of the gain scores and the outcome measures appear in Table 7.13. An increase in Self concerns is related to the university supervisor indicating that he/she spent more time than expected and that the experience went less well than expected. The other side of this matter is expressed by the finding that those supervisors whose Locus of Control scores increased, indicated that they spent less time with their supervisory responsibilities and perceived the experience as better than they expected. (The Time items are reversed for this measure.) These findings lend support to the Locus of Control as an important factor: one would expect that increased sense of personal control would result in decreased anxiety about others' evaluation of oneself (Self concerns). What factors contribute to these increases remain to be identified.

Table 7.13

Correlations of Residual Scores with Expectations and Performance Ratings - University Supervisors

Residual Gain Scores	Outcome Measures			
	Expectations	Performance Ratings		
		Self	Cooperating Teachers	Student Teachers
Self concerns	-.74**			
Task concerns				
Impact Concerns		.45*		
Flexibility			.43*	
Locus of control	.48*			.47*
Empathy				
Self-esteem				
Educational philosophy				
Conceptual level		-.60**		

*p < .05

**p < .01

There were few significant correlations across the performance ratings. An increase in Impact concerns was positively related to performance self-ratings, but an increase in Conceptual Level was negatively correlated with these ratings. Perhaps the increase in Conceptual Level results in a more critical examination of self. Changes in Flexibility were correlated with cooperating teacher ratings, and changes in Locus of Control were related to student teacher ratings. The Flexibility change would seem very reasonable as cooperating teachers may find these supervisors easier to work with. A positive change in Locus of Control may dispose the supervisor to allow more leeway to the student teacher's ideas and initiatives.

These findings provide an initial picture of the kinds of entry characteristics and changes that may be related to expectations and performance ratings of the university supervisor. The most consistent finding seems to be the importance of Locus of Control to the supervisor's own perception of him/herself. The findings also provide a general picture of the type of supervisor that is rated as effective by the cooperating teacher: an empathic, concerned person who is self-confident. These findings may begin to help us understand the role and impact of the university supervisor in student teaching.

In summary, except for Empathy, the entry characteristics were generally more predictive of the student teachers' outcomes than the cooperating teachers' or the university supervisors' outcomes. Of the characteristics examined, Empathy, the ability to provide affective support to individuals as a function of a helping role, was by far the most predictive entry characteristic for the student teachers' outcomes. It was positively associated with the degree to which expectations were met, satisfaction, and all three performance ratings. Perhaps the emotional strength and resilience implied by Empathy is important for student teachers to "get off on the right foot" at the beginning of the school year. In any case, regarding the question of selection, it would seem to be an important characteristic to look for in student teacher candidates. It is unclear why the entry characteristics seemed less important for the cooperating teachers' and university supervisors' outcomes. Perhaps specific incidents and experiences are more important to successful outcomes for cooperating teachers and university supervisors, while personal characteristics are more crucial to the successful outcomes of the neophyte student teachers.

An analysis of the residual score relationships with outcomes shows that they parallel those of the entry level characteristics. That is, changes on the characteristics were more predictive of student teacher outcomes than of those of cooperating teachers or university supervisors. Positive change on Empathy was positively related to student teacher performance ratings by themselves and their cooperating teachers, further emphasizing Empathy as an important factor for student teachers. However, when change over time is considered, Self-Esteem and Conceptual Level surpass Empathy as a predictor of outcomes. Thus, relating to the question of effective supervision, it would seem that these three factors should be considered as integral to the ongoing student teaching experience. Since, except for Empathy, the entry-level characteristics seemed to be poor predictors of cooperating teachers' and university supervisors' outcomes, it is not surprising that change on those characteristics was not strongly predictive either. As mentioned above, it is unclear why this is the case.

Inferential Statistics

Several analyses of variance were run on the outcome measures utilized in this study. ANOVAs of the Student Teaching Satisfaction scale, the Student

Teaching Expectations subscales, and the Performance Ratings will be presented and discussed. No discussion of the final evaluations is possible, however, due to: (a) the skewedness of the data, which rendered the ANOVAs invalid; (b) the lack of comparability of numbers of items on each subscale across sites; and, (c) the lack of comparability of the dimensions underlying each rating scale. Therefore, attention will be given exclusively to the other outcome measures.

Differences on satisfaction, performance, and expectations scores due to site, samples and/or participant role. Two-way ANOVAs with site and sample were conducted for the expectations and satisfaction instruments and a three-way ANOVA was conducted for the performance ratings. Due to unequal cell sizes, hierarchical analyses were conducted with site entered first, followed by sample, and their interaction for the analyses of satisfaction and expectations scores (Tables 7.17-7.22). Because the performance scales were comparable, differences in scoring due to role perspectives was also analyzed, resulting in a hierarchical analysis with site entered first followed by sample, then participant perspective and interactions (Tables 7.23-7.25). Means of the measures by site, sample, and participant type are displayed in Tables 7.14-7.16.

While one might hypothesize that expectations, satisfaction and performance ratings might differ at the two different locations, this was not generally the case. Satisfaction with the student teaching experience and the degree to which expectations were met appeared to be about the same at both sites. There was a difference in the performance ratings of the cooperating teachers between the two sites. Urban cooperating teachers received higher ratings than those at Lakeview (Table 7.15 and 7.24). As noted before,

Table 7.14

Means of Student Teacher Satisfaction Scores by Site and Sample

	State University	Metropolitan University
Intensive Sample	90.90 (N=10)	86.40 (N=10)
General Sample	91.91 (N=33)	90.77 (N=35)

Table 7.15

Means, Standard Deviations, and Ranges of Performance Rating Scales

	Mean	Standard Deviation	Range	N[a]
ST by Self	4.36	.40	3.10 - 5.00	86
ST by CT	3.99	.68	1.92 - 4.76	81
ST by US	4.12	.64	2.41 - 4.73	33
CT by Self	4.60	.35	3.86 - 5.00	86
CT by ST	4.22	.85	1.64 - 5.00	77
CT by US	4.18	.84	1.57 - 5.00	31
US by Self	4.52	.28	3.93 - 5.00	17
US by ST	4.01	.53	2.99 - 5.00	17
US by CT	4.22	.44	3.12 - 4.75	16

[a] There were 198 participants in the study, including four US's from MU and 13 US's from SU. Because US's at both sites were assigned to more than one triad, they rated only a subset of their triads, usually from the intensive sample. Discrepancies in N, then, reflect variation in N of US's and/or missing data.

Table 7.16

Means of Expectation Scores by Site, Sample, Participant Type and Subscale

		State University	Metropolitan University
INTENSIVE	CT	51.80 (N=10)	50.50 (N=10)
	US	3.18 (N=5)	3.00 (N=4)
	ST Orientation	16.60 (N=10)	17.75 (N=8)
	ST Competence	10.60 (N=10)	13.88 (N=8)
	ST Time	30.00 (N=10)	35.25 (N=8)
	ST Value of Prior Courses	2.61 (N=10)	2.15 (N=8)
GENERAL	CT	52.26 (N=31)	49.50 (N=34)
	US	3.22 (N=8)	0 0
	ST Orientation	15.03 (N=33)	14.97 (N=33)
	ST Competence	9.88 (N=33)	10.09 (N=33)
	ST Time	31.39 (N=33)	32.09 (N=33)
	ST Value of Prior Courses	2.59 (N=33)	2.22 (N=33)

Table 7.17

Summary of ANOVA of Student Teacher Satisfaction Scores by Site and Sample

Source	SS	df	MS	F
Site	77.256	1	77.256	.526
Sample	112.772	1	112.772	.768
Site x Sample	43.671	1	43,671	.297
Residual	12334.199	84	146.836	
Total	12567.898	87	144.459	

Table 7.18

Summary of ANOVA of the Orientation Subscale of the Student Teacher Expectations Scale by Site and Sample

Source	SS	df	MS	F
Site	.287	1	.287	.020
Sample	63.552	1	63.552	4.414*
Site x Sample	5.131	1	5.131	.552
Residual	1151.839	80	14.398	
Total	1220.810	83	14.709	

* $p < .05$

Table 7.19

Summary of ANOVA of Competence Subscale of the Student Teacher Expectations Scale by Site and Sample

Source	SS	df	MS	F
Site	12.860	1	12.860	.99
Sample	63.348	1	63.348	4.875*
Site x Sample	32.847	1	32.847	2.528
Residual	1039.517	80	12.994	
Total	1148.571	83	13.838	

* $p < .05$

Table 7.20

Summary of ANOVA of the Time Subscale of the Student Teacher Expectations Scale by Site and Sample

Source	SS	df	MS	F
Site	56.281	1	56.281	1.371
Sample	6.590	1	6.590	.161
Site x Sample	72.583	1	72.583	1.768
Residual	3284.106	80	41.051	
Total	3410.56	83	41.200	

Table 7.21

Summary of ANOVA of the Cooperating Teacher Expectation Scale by Site and Sample

Source	SS	df	MS	F
Site	124.198	1	124.198	.898
Sample	1.189	1	1.189	.009
Site x Sample	8.125	1	8.125	.059
Residual	11196.535	81	138.229	
Total	11330.047	84	134.882	

Table 7.22

Summary of ANOVA of the University Supervisor

Expectations Scale by Site and Sample

Source	SS	df	MS	F
Site	.129	1	.129	.190
Sample	.005	1	.005	.008
Residual	9.507	14	.679	
Total	9.641	16	.604	

Table 7.23

Summary of ANOVA of Student Teacher Performance Ratings by Site, Sample, and Participant Perspective

Source	SS	df	MS	F
Site	.009	1	.009	.027
Sample	.039	1	.039	.115
Perspective	7.410	2	3.705	10.853*
Site x Sample	.354	1	.354	1.036
Site x Perspective	.578	2	.289	.846
Sample x Perspective	.305	2	.152	.447
Site x Sample x Perspective	.348	1	.348	1.019
Residual	66.572	195	.341	
Total	76.885	205	.375	

* $p < .01$

Table 7.24

Summary of ANOVA of Cooperating Teacher Performance Ratings by Site, Sample, and Participant Perspective

Source	SS	df	MS	F
Site	3.186	1	3.186	7.689*
Sample	.736	1	.736	1.776
Perspective	7.029	2	3.515	8.483*
Site x Sample	.000	1	.000	.999
Site x Perspective	.290	2	.145	.350
Sample x Perspective	1.835	2	.918	2.215
Site x Sample x Perspective	.740	1	.740	1.787
Residual	78.305	189	.414	
Total	94.006	199	.472	

* p < .01

Table 7.25

Summary of ANOVA of the University Supervisor Performance Ratings by Site, Sample, and Participant Perspectives

Source	SS	df	MS	F
Site	.002	1	.002	.003
Sample	1.065	1	1.065	1.910
Perspective	8.255	2	4.128	7.401*
Site x Perspective	.068	2	.034	.061
Sample x Perspective	.447	2	.223	.401
Residual	101.496	182	.558	
Total	111.621	190	.587	

* $p < .01$

though, the university supervisors at Urban rated only their intensive sample teachers whom they had previously nominated as outstanding; whereas at Lakeview the teachers were not systematically assigned to general or intensive samples on the basis of supervisor nomination. Furthermore, the university supervisors at Lakeview rated both their general and intensive teachers. Thus, we would expect somewhat higher ratings of the Urban cooperating teachers simply as an artifact of this design. However, their ratings were not sufficiently high to result in significant sample differences. In any case the absolute difference between the means at each site is extremely small. There were no other other differences on the outcome measures due to site.

Although there were no sample differences regarding the degree to which expectations were met among the cooperating teachers and university supervisors, there was a difference among student teachers (Tables 7.14, 7.18 7.19). Intensive sample student teachers reported that their expectations regarding orientation to teaching and their own competence were met; whereas, general sample student teachers reported that their expectations were exceeded. Perhaps this was due to the increased reflection and analysis that was undertaken by the intensive student teachers. This may have resulted in more realistic expectations for their student teaching experience than those of the general sample student teachers.

The performance ratings of the participants by their respective triad members showed few differences (Table 7.16, 7.23-7.25). As mentioned before, the self-ratings of each group were significantly higher than the ratings of the same group by their respective triad members. There were also slight differences in the ratings of the university supervisor by the student teacher and the cooperating teacher, indicating that the cooperating teachers had more favorable perceptions (Tables 7.16, 7.25). The consistently higher self-ratings remind us of the caution with which all self-report data should be interpreted. Certainly, tendencies toward giving socially acceptable responses should be considered here. The significantly lower performance ratings of the university supervisors by their student teachers relative to their cooperating teachers is puzzling, particularly in light of the student teachers' generally high satisfaction and expectations scores. Perhaps these findings reflect a degree of professional rapport not shared between the university supervisors and student teachers. Or perhaps they reflect different standards held by the student teachers versus the other two groups. Given their very different roles this certainly seems possible. Clearly more investigation is needed, though, to pursue these speculations.

Chapter Summary

This chapter described the various outcomes of student teaching which were monitored as part of a comprehensive study of that experience. These included performance ratings across all role groups in the student teaching triads, final evaluations of the student teachers, the levels of satisfaction reported by student teachers, and ratings of the degree to which participants' expectations were met. The chapter was organized into three major sections, including the reporting and discussion of descriptive statistics, the reporting and discussion of correlational data, and finally the reporting and discussion of inferential statistics computed upon the different outcome measures.

First, descriptive statistics on each of these outcome indicators were reported. It was found that student teachers were generally quite satisfied with their semester-long experience, regardless of their site or whether they had participated intensively or not in the study. Also, on all three subscales pertaining to student teachers' expectations (Orientation to Teaching, Teaching Competence, and Time Spent in Teaching Activities), means were observed to fall well below the scales' midpoints, indicating that student teachers' expectations were exceeded in each of these areas. Although no apparent differences were observed for the site variable, intensive sample student teachers reported that their expectations were, on the average, met but not exceeded; those in the general sample felt their expectations had been exceeded. On the average, all cooperating teachers at both sites and in both samples reported that their expectations had been met but not exceeded. Similarly, the university supervisors' mean score was indicative of a general meeting of expectations. The performance ratings, made by each triad member of him/herself as well as of the other triad members, uniformly revealed that self-ratings were higher than the performance ratings generated by the others in the triads. Student teachers were generally rated about equally by their supervisors and their cooperating teachers. Intensive sample cooperating teachers obtained higher ratings than their general sample counterparts--the latter having been observed to be an artifact of the method by which the sample was chosen. However, across role groups, cooperating teachers were rated in approximately the same manner by student teachers and university supervisors. Only university supervisors received differential ratings as a function of rater. That is, cooperating teachers tended to rate the supervisors more favorably than did the student teachers. Reasons for this difference were discussed. Final evaluation data on the student teachers were also examined. Generally, it was found that all student teachers were assessed by their cooperating teachers and supervisors quite favorably, with mean scores falling within a standard deviation of the maxima of the five-point scales against which they had been compared. Although the means at one site appeared to be higher than the means at the second, no satisfactory way of comparing the two directly was found, due to the different scales and dimensions employed at the two sites.

The second major section of the chapter reported correlational data among the outcome measures, and between these and either entry-level characteristics or the changes (residual gain scores) which had occurred on the entry-level characteristics. Statistically significant (although often moderate, e.g., r = .35) correlation coefficients were obtained in several instances; between student teachers' Satisfaction and their final evaluation ratings; between students teachers' Expectations (except those pertaining to amounts of time spent in preparation for student teaching and the item pertaining to whether or not the student teachers planned to teach) and their final evaluation ratings; and between performance ratings by self and others, and final evaluation ratings. One should note however, that due to the restricted range of the scores of all outcome measures, correlation coefficients of .40 or above were not expected. Results about the other personal and professional characteristics of triad members in relation to outcomes was presented by role group. Among student teachers, few of the entry characteristics measured in the study were significantly related to outcomes; exceptions were discussed. Positive changes in the student teachers' Self-Esteem and Conceptual Levels seemed to be related to outcomes. Among cooperating teachers, no relationships were observed to occur between their expectations for the student teaching semester and their entry-level characteristics. Few of the performance ratings made by cooperating teachers were related to their entry-level characteristics, and those which were related pertained only to the self-ratings made by the teachers. Similarly, few of the residual gain scores of cooperating teachers were related to outcome measures; several of these occurred in directions which might not ordinarly be anticipated. Among the university supervisors, expectations were significantly related to Locus of Control and Educational Preference. Certain entry-level characteristics of the supervisors were also related to their performance ratings made by their cooperating teachers. Also, supervisors whose Locus of Control scores incrased tended to indicate that they spent less time than they expected and felt that the experience had progressed better than they expected. In general it was found that entry characteristics were more predictive of student teachers' outcomes than those of supervisors or cooperating teachers.

In the final portion of the chapter, inferential statistics calculated upon the outcome measures were reported (these were uniformly ANOVAs, hierarchical for site, sample, and role type, respectively). As was mentioned above, the analyses were not deemed appropriate for the final evaluation data.

Differences on satisfaction, expectations, and performance scores with regard to these variables were presented. In general, satisfaction with the student teaching experience and the degree to which expectations were met were similar at both sites. The only site difference reported involved the performance ratings of the cooperating teachers. This difference was possibly due to differences in the design for selecting and rating cooperating teachers at the two sites.

No sample differences were found with respect to expectations of the cooperating teachers and the university supervisors. However, differences among student teacher expectations were noted between the two samples. Although the intensive sample reported that their expectations had been met, the general sample reported that expectations regarding orientation to teaching and their own competencies had been exceeded.

CHAPTER 8

TEACHING

As part of the larger study describing the preservice clinical experience, student teachers and their cooperating teachers were observed in their classroom settings by trained observers. The purpose of this chapter is to report the results of the analysis of the data gathered in those classrooms. In the first section a brief overview of the collection and analysis of the data is presented followed by a short reporting of descriptive statistics for groups of variables and a more indepth presentation for the separate variables, focusing on teacher groups and change over the semester. Finally, discussion of results, limitations, and implications conclude the chapter.

Observers wrote narratives and recorded periodic estimates of students' task involvement. Guidelines for narratives focused observer attention toward instructional management, inappropriate student behavior, managing pupil behavior, classroom climate, attention to individual differences, teaching methods, questioning, administrative or organizational skills, and the amount of time spent on warm up, instruction, direction giving, individual/small group seatwork, or unassigned time. These categories were adapted from Emmer, E., Sanford, J., Evertson, E., Clements, B., and Martin, J. (Note 19), with additions made by the RITE staff to reflect the presence of two teachers in the classroom. For a more thorough discussion of each area see Defino (Note 20).

Observations of cooperating teachers began in late September. Observations of student teachers began in early October, after they had been assigned to cooperating teachers and were accustomed to the classroom. Observations were conducted five times for cooperating teachers and four times for student teachers. For the present report, early and late observations of both cooperating teachers and student teachers provide the data discussed.

After data collection, the RITE staff refined the narrative guidelines into a coding system which provided an index to the raw data, a record of examples drawn from the data, and frequencies for each of the variables included in the system. Five individuals received approximately 30 hours of training in the use of the coding system. At the completion of the training sessions coders achieved 97% reliability; coders maintained 87% agreement four weeks after training. Reliability was computed based upon agreement of coders on both frequencies of behaviors tallied and use of appropriate categories.

Due to the varying numbers of children in each class (from 13 to 38 pupils), the varying length of the observations (15 minutes to 70 minutes), the frequencies which resulted from the coding process were normalized into rates per 100 student-hours. That is, raw frequencies were divided by the number of pupils per class and by the length of the observation (in minutes) and multiplied by 60 minutes per hour. Since the resulting frequencies were so low that many results involved numbers less than one, the results were again multiplied by the constant 100 for ease in reporting. Calculated means and standard deviations shown in Table 8.1 will be reported in this section of the chapter, grouped as follows: the first 15 variables all examine behaviors related to Instructional Management; the next four variables pertain to Managing Pupil Behavior; six relate to Appropriate Student Behaviors; all forms of inappropriate student behavior were included in Inappropriate Student Behavior; six variables were included in the group termed Teacher Reactions to Inappropriate Student Behavior; five variables were included in Materials; and four were included in Administrative Activity. Each of these groups of variables will be discussed in turn.

Table 8.1

Sample Means and Standard Deviations for Variables Within Behavior Categories

	Mean	Standard Deviation
Instructional Management	19.89*	13.46
1. Describes objectives	2.18	3.98
2. Direction-giving	106.76	102.52
3. Waits for attention	3.86	8.52
4. Monitors understanding	10.07	12.79
5. Individual assistance	13.84	14.03
6. Work quality and quantity	1.64	5.14
7. Offers explanations	19.63	28.95
8. Praises/acknowledges	24.76	26.54
9. Corrects: process/product	8.73	12.86
10. Refers to prior lesson content	3.29	10.42
11. Repeats main points	4.29	7.52
12. Motivates lesson	4.42	11.15
13. Cues attention, academic	26.33	25.21
14. Uses examples/demonstrates	12.83	17.04
15. Questioning	55.66	54.67
Managing Pupil Behavior	9.34	7.53
16. Rewards appropriate behavior	3.758	7.11
17. Cues appropriate behavior	17.45	19.35
18. Monitoring	4.74	9.89
19. Movement into/out of room	11.43	14.22

*per 100 student hours

Table 8.1 (Cont.)

	Mean	Standard Deviation
Appropriate Student Behavior	35.07	20.36
20. Students actively participate	106.16	78.98
21. Compliance with teacher requests	20.60	23.64
22. Student request for clarification	12.05	18.83
23. Student movement in room-general	35.76	33.01
24. Student movement in room-materials	17.42	19.88
25. Student-to-student communication	18.41	18.52
Inappropriate Student Behavior	21.08	26.92
26. Inappropriate student behavior	21.08	26.92
Teacher Reaction to Inappropriate Behavior	4.22	5.01
27. Cites rules/procedures	1.78	4.27
28. Nonverbal contact	2.66	5.73
29. Desist statement	7.98	11.75
30. Punishment, criticism	3.80	5.79
31. Ignores	1.16	2.47
32. Directs behaviors	7.91	12.85
Materials	8.09	7.04
33. In and out	8.14	10.40
34. Used by teacher	29.52	30.26
35. Incomplete	.62	3.76
36. Insufficient quantity	.30	1.55
37. Product	1.89	4.55

Table 8.1 (Cont.)

	Mean	Standard Deviation
Administrative Activity		
38. Grading	.80	1.47
39. Makeup Work	1.33	.96
40. Roll	.46	1.42
41. Other	1.25	3.56

The first group of variables all dealt with particular facets of Instructional Management. For this category, the coding of teacher behaviors resulted in a grand mean of 19.89 with a standard deviation of 13.46. The means of two behaviors within the category, "Direction-Giving" ($\bar{x}$ = 106.76) and "Questioning" ($\bar{x}$ = 55.69), were more than one standard deviation above the category mean. Other behaviors which occurred so infrequently that means of these behaviors fell more than one standard deviation below the category mean were 1) "Describing Objectives" ($\bar{x}$ = 2.18), 2) "Waiting for Attention" ($\bar{x}$ = 3.86), 3) "Making Statements About Work Quality and Quantity" ($\bar{x}$ = 1.64), 4) "Making References to Prior Lesson Content" ($\bar{x}$ = 3.29), 5) "Repeating Main Points of the Lesson" ($\bar{x}$ = 4.29), and 6) "Making Motivating Statements About the Lesson" ($\bar{x}$ = 4.41).

Narratives were also coded for teacher behaviors which guided students toward acceptable modes of behavior during instruction, and for appropriate student reactions to that guidance. For the Managing Pupil Behavior category, the mean was 9.34 with a standard deviation of 7.52. Only the mean for "Cueing Appropriate Behavior" ($\bar{x}$ = 17.45) fell more than one standard deviation above the category mean while no mean fell more than one standard deviation below the grand mean. "Monitoring" ($\bar{x}$ = 4.74) and "Rewarding Appropriate Behavior" ($\bar{x}$ = 3.75) occurred least often. In the category of Appropriate Student Behavior, the mean for "Students Actively Participating in Class" ($\bar{x}$ = 106.16) fell more than one standard deviation above the category mean ($\bar{x}$ = 35.07) while the mean for "Student Requests for Clarification" ($\bar{x}$ = 12.05) was more than one standard deviation below the category mean.

Other variables were categorized for evidence that students were not exhibiting acceptable behavior and for the teachers' reactions to the unacceptable behavior. Only one variable was contained in the Inappropriate

Student Behavior category, a normalized frequency of student actions coded as inappropriate. The mean for the category was 21.08 with a standard deviation of 26.92. In the category for Teacher Reactions to Inappropriate Behavior, none of the means of the variables fell more than one standard deviation above or below the category mean ($\bar{x}$ = 4.22, s.d. = 5.01) although the highest means were for "Desist Statements" ($\bar{x}$ = 7.98) and "Directing Behavior" ($\bar{x}$ = 7.91). Lowest means occurred with "Citing Rules and Procedures" ($\bar{x}$ = 1.78) and "Ignoring Inappropriate Behavior" ($\bar{x}$ = 1.16).

Two additional categories dealt with Materials used in the classroom and evidence of teachers' performance of Administrative Activities in the classroom. In the Materials category the mean for "Materials Used by the Teacher" ($\bar{x}$ = 29.53) was more than one standard deviation above the category mean ($\bar{x}$ = 8.09, s.d. = 7.04), while means for the "Teachers Using Incomplete Materials" ($\bar{x}$ = .62) and "Having an Insufficient Quantity of Materials" ($\bar{x}$ = .30) fell more than one standard deviation below the category mean. In Administrative Activity none of the means of the variables included fell more than one standard deviation above or below the category mean ($\bar{x}$ = .80, s.d. = 15). Highest means occurred for "Grading" ($\bar{x}$ = 1.33) and "Other, Unspecified Administrative Activities" ($\bar{x}$ = 1.25) while lowest means occurred for "Teachers' Administration of Makeup Work" ($\bar{x}$ = .15).

Frequencies for the eighth category, Student Teacher-Cooperating Teacher Interactions, are presented in Table 8.2. Because of the low occurrence of these behaviors, only normalized frequencies are presented. "Observing," "Demonstrating." "Feedback to Student Teacher," Discussion," and "Adult Interference" between or by the cooperating teacher or the student teacher occurred less than one time per 100 student hours. The extremely low feedback

Table 8.2

Occurrence of Student Teacher-Cooperating Teacher Interactions

	Time 1		Time 2	
	CT	ST	CT	ST
Observing	.65*	.40	.50	.35
Demonstrating	.10	.00	.05	.00
Feedback to Student Teacher	.00	.00	.00	.10
Discussion	.65	1.70	.75	1.50
Absence/Presence/ Location Change	8.75	9.40	7.65	7.55
Physical Change	.00	.00	.00	.10
Adult Interference				
CT/ST	.35	.15	.05	.15
Other	.45	.45	.30	.30

*per 100 student hours

frequencies may have been the result of the coding system which dictated that conversation be coded as feedback only if the observer cited specific evidence of feedback. Otherwise, the observed conversation was coded as discussion. Observance of a teacher making a physical change in the classroom was rare, almost non-existent. The variable, "Absence/Presence/Location Change," provided a composite of the teachers' movements within, into or out of the classroom. As with the frequencies on other interactions reported, movement of cooperating teachers and student teachers were similar.

In summary, the data reported in this section provide a general picture of the teaching activities of cooperating teachers and student teachers. Observed instruction consisted mostly of direction-giving. Questioning was next in frequency, occurring only half as often. Statements intended to motivate, review, secure attention, or hold students accountable for work were seldom recorded. When materials were used, they were usually well-prepared and sufficient for the task. Teachers were usually focused upon the students rather than upon administrative paperwork during the observation. Cooperating teachers and student teachers moved around the room in similar fashion and engaged in discussion or observation infrequently. The student teachers moved into the cooperating teachers' classrooms and rarely affected the organization of those classrooms.

The teachers often cued specific behaviors for students to exhibit to but seldom monitored or rewarded students. In other words, teachers were not observed to follow through on their cues as often as they gave cues. Since the average rate of appropriate behavior was only 50% higher than the average rate of inappropriate behavior, perhaps more monitoring, cueing, or other proactive teacher behaviors would have been appropriate.

When inappropriate behavior occurred, teachers made desisting or directing statements most often and rarely made references to stated rules or established procedures. Teachers were not often observed consciously ignoring inappropriate behavior. This may have been a function of the coding system: in order to be coded as ignoring, the teacher had to be observed watching the incident, pausing, and then continuing with previous activity as if nothing had occurred. The picture that emerged of teacher reaction to inappropriate behavior was one of reaction to specific situations rather than planned procedures for dealing with inappropriate actions.

After descriptive statistics were calculated, it was noted that the data were significantly, positively skewed (Snedecor & Cochran, 1967). Further statistical analyses were therefore deemed inappropriate. Given the preceding overview of the seven categories of variables and the extreme cases with each category, the individual variables' means and standard deviations were examined for the possible existence of trends or patterns. Note that none of these patterns were documented through statistical manipulations due to the inappropriateness of their application to such highly skewed data. Comments and possible interpretations of the descriptive statistics are necessarily speculative in nature.

Instructional Management

Over the specific variables within Instructional Management, collapsed across Time 1 and Time 2 (Table 8.3), student teachers' mean rates ranged from 1.11 to 114.64, while cooperating teachers' mean rates ranged from 2.17 to 98.87. When means were separated for Time 1 and Time 2 (Table 8.4), the student teachers' mean rates ranged as follows: Time 1, from 0.77 to 120.00; and Time 2, from 0.51 to 109.28. The cooperating teachers' mean rates ranged in this manner: Time 1, from 1.74 to 106.83; and Time 2, from 1.69 to 90.90.

Table 8.3

Means and Standard Deviations of Cooperating Teachers and Student Teachers for Instructional Management

	Mean		Standard Deviation	
Instructional Management	CT	ST	CT	ST
1. Describes objectives	3.24*	1.11	4.54	3.05
2. Direction-giving	98.87	114.64	78.40	121.91
3. Waits for attention	3.36	4.35	7.08	9.82
4. Monitors understanding	11.02	9.13	11.83	13.76
5. Individual assistance	12.15	15.54	11.12	16.41
6. Work quality/quantity	2.17	1.11	6.44	3.39
7. Explanations	24.57	14.69	36.48	17.81
8. Praises/acknowledges	26.25	23.27	26.58	26.75
9. Corrects	8.42	9.05	11.15	14.50
10. Refers to prior lesson	2.37	4.21	3.61	14.32
11. Repeats main points	3.81	4.78	7.69	7.42
12. Motivates lesson	6.37	2.46	15.03	4.26
13. Cues attention	25.10	27.55	25.64	25.00
14. Uses examples/ demonstrates	12.44	13.23	15.06	19.01
15. Questioning	56.81	54.56	49.94	58.64

* per 100 student hours

Table 8.4

Means and Standard Deviations of Cooperating Teachers and Student Teachers at Time 1 and Time 2 for Instructional Management

	Time 1				Time 2			
	Mean		Standard Deviation		Mean		Standard Deviation	
Instructional Management	CT	ST	CT	ST	CT	ST	CT	ST
1. Describes objectives	2.85*	1.64	3.52	3.44	3.63	0.58	5.41	2.59
2. Direction-giving	106.83	120.00	72.86	146.46	90.90	109.28	84.71	94.85
3. Waits for attention	4.66	2.97	8.97	6.14	2.07	5.73	4.37	12.50
4. Monitors understanding	12.94	10.77	13.75	15.43	9.10	7.49	9.51	12.05
5. Individual assistance	13.34	15.41	11.21	11.87	10.95	15.68	11.20	20.30
6. Work quality/quantity	1.74	1.70	3.75	4.20	2.60	0.51	8.40	2.29
7. Explanations	26.63	10.90	39.98	19.16	22.52	18.49	33.52	15.93
8. Praises/acknowledges	30.73	26.57	31.02	33.70	21.77	19.97	21.11	17.61
9. Corrects	8.02	9.27	10.76	18.17	8.82	8.83	11.79	10.07
10. Refers to prior lesson	3.05	0.77	4.23	1.89	1.69	7.66	2.81	19.81
11. Repeats main points	2.96	2.20	4.93	4.63	4.66	7.36	9.77	8.80
12. Motivates lesson	4.84	2.01	10.74	3.43	7.90	2.92	18.53	5.01
13. Cues attention	24.92	21.75	21.20	21.55	25.27	33.36	30.00	27.42
14. Uses examples/demonstrates	9.68	11.56	9.70	21.00	15.19	14.90	18.85	17.17
15. Questioning	50.52	40.29	39.72	55.17	63.10	68.83	58.81	61.87

* per 100 student hours

Note that, in all cases, the ranges for cooperating teachers were slightly more constricted than were the ranges for the student teachers. Examination of mean rates within the specific Instructional Management behavior categories, across and within Times, will be useful at this point.

Describes objectives. The mean rate of describing objectives collapsed across Time 1 and 2 (Table 8.3) for cooperating teachers was 3.24, with a standard deviation of 4.52. The student teachers' mean rate of describing objectives collapsed across Time 1 and 2 was 1.11, with a standard deviation of 3.05. When the teachers' mean rates were considered separately for Time 1 and Time 2, a pattern of divergence became apparent. That is, cooperating teachers' rate of describing objectives for the lesson increased over time from 2.85 to 3.63, and was higher than the student teachers' mean rate at either Time 1 or 2. Furthermore, the student teachers showed a reverse tendency, such that they described instructional objectives less often at Time 2 than they had at Time 1 (from 1.64 to 0.58). Reasons for this divergence are unclear, although the pattern seemed worth noting.

Direction-giving. The second category within instructional management derived from tallies of each statement of directions for completing assignments made by either cooperating teachers or student teachers. The mean rate of direction-giving across Times for cooperating teachers was 98.87, with a standard deviation of 78.40. In contrast, the student teachers' mean rate of direction-giving across Times was 114.64, with a standard deviation of 121.91. Again, possible divergence across the role groups was evident. That is, although both cooperating teachers' and student teachers' mean rates of direction-giving decreased from Time 1 to Time 2 (106.83 to 90.90 and 120.00 to 109.28, respectively), the difference across the two role groups was somewhat greater at Time 2 than at Time 1. It is also important to note that student teachers generally had higher mean rates of direction-giving than cooperating teachers. Perhaps of greatest interest among these data was the change in the standard deviations characterizing the student teachers: at Time 1 the standard deviation was 146.46, while at Time 2 it was 94.85. Compare these to the standard deviations characterizing the cooperating teachers: 72.86 and 84.71, respectively. Thus, the variability in the amount of direction-giving generated by student teachers decreased to a degree where it more closely resembled that of the cooperating teachers at Time 2.

Waits for attention. For the third variable the mean rate across Times 1 and 2 for cooperating teachers was 3.36, with a standard deviation of 7.08; the mean rate of waiting for attention across Times 1 and 2 for student teachers was 4.35, with a standard deviation of 9.82. In this case, an interaction type of pattern was revealed when the means for Times 1 and 2 were considered separately for each role group. That is, cooperating teachers' mean rate of waiting for attention at Time 1 was 4.66 and at Time 2 had decreased to 2.07. Conversely, the student teachers' mean rate of waiting for attention at Time 1 was 2.97, and at Time 2 had increased to 5.73. This is paralleled by the values of the standard deviations accompanying these means; 8.97 to 4.37 for cooperating teachers at Times 1 and 2, compared to 6.14 to 12.50 for student teachers at Times 1 and 2. Reasons for the cooperating teachers' decreased tendency to wait for their pupils' attention, or for the student teachers increased rate of waiting (characterized by more variability) are not clear.

Monitoring understanding. Tallies within this variable included counts of more than one specific strategy, such as the eliciting of pupils' questions and directly asking whether or not they understood. The mean rate of monitoring understanding across Times 1 and 2 by the cooperating teachers was

11.02 with a standard deviation of 11.83; the mean rate for the student teachers was 9.13, with a standard deviation of 13.76. The pattern of the means over Times 1 and 2 for both student and cooperating teachers is one of declining rates of monitoring understanding; however, the change is more dramatic on the part of cooperating teachers (from 12.94 to 9.10, compared to 10.77 to 7.49). Variability in the rates of these behaviors decreased similarly.

Individual assistance. The mean rate with which cooperating teachers were observed working one-to-one with individual pupils in the classroom across Times 1 and 2 for cooperating teachers was 12.15, with a standard deviation of 11.12; parallel data for the student teachers were 15.14 and 16.41, respectively. No substantial differences were observed when the mean rates for each role group within class were calculated separately for Time 1 and Time 2 (13.34 and 10.95 for cooperating teachers, 15.41 and 15.68 for student teachers). The only noteworthy change, albeit one which is quite difficult to comment upon, is the substantial increase in the standard deviations characterizing the student teachers' observed behavior rates over Times 1 and 2 (from 11.87 to 20.30); the cooperating teachers' variability in offering individual assistance remained virtually constant over the semester.

Work quality/quantity. This variable reflected tallies of teachers' responses to the quality and/or quantity of work produced by pupils. Although a tendency towards divergence in the behaviors of student and cooperating teachers was apparent, the frequencies were uniformly low. For example, the mean rate of classroom teachers' responses to pupil work quality and quantity across Times 1 and 2 was 2.17, with a standard deviation of 6.44; the mean rate and standard deviation for the student teachers were 1.11 and 3.39, respectively. When mean rates were separated into Time 1 and Time 2, the following results occurred: cooperating teachers' attention to pupil work quality and quantity increased from 1.74 to 2.60, while student teachers' attention to this decreased from 1.70 to 0.51. Once again, reasons for the changes are unclear.

Explanations. Teachers' offering explanations to students was another aspect of effective instructional management examined in this study. Collapsed across Times, cooperating teachers' mean rate of offering explanations was 24.57 with a standard deviation of 36.48; student teachers' mean rate was 14.69 with a standard deviation of 17.81. A tendency towards congruity in the behavior of cooperating teachers and student teachers appears when mean rates for Times 1 and 2 are considered separately: 26.63 with a standard deviation of 39.98 at Time 1 and 22.52 with a standard deviation of 33.52 at Time 2 for cooperating teachers; 10.90 with a standard deviation of 19.16 at Time 1 and 18.49 with a standard deviation of 15.93 at Time 2 for student teachers. As is the case with several of the findings presented above, the size of the standard deviations relative to that of the means was substantial and reflective of the skewedness of these data. Reasons for such wide variation in the rates of teacher explanations to students are presently unknown.

Praises/acknowledges. Although cooperating teachers were observed generally to praise or acknowledge the pupils more often than student teachers (mean overall rates of 26.25 and 23.27, respectively), both role groups showed a clear tendency to praise less over time. The cooperating teachers' mean rate of praising/acknowledging classroom students at Time 1 was 30.73, while at Time 2 it was 21.77; the student teachers' mean rate of praising/acknowledging the pupils was initially 26.57, and dropped at Time 2 to 18.97. Thus, the change was slightly more pronounced among cooperating teachers, and both role groups showed similar levels of praise/acknowledgement at the semester's end.

Corrects. One variable which failed to reveal any major differences over Times or across role groups was the correction of student responses to both process and product questions. Teachers and student teachers alike showed comparable mean rates of correcting students at Times 1 and 2. These were uniformly low: 8.02 and 8.82 for cooperating teachers, 9.27 and 8.83 for student teachers. Again, the corresponding standard deviations for these were also quite large, 10.76 and 11.79, and 18.17 and 10.07, respectively.

Repeats main points. The overall mean rates on this variable were low (3.81 and 4.78 for cooperating and student teachers), but substantial changes occurred over time. Cooperating teachers' mean rate of repeating main points at Time 1 was 2.96, with a standard deviation of 4.93; these figures increased by Time 2 to a mean rate of 4.66 and standard deviation of 9.77. Showing even more change, the student teachers' initial mean rate of repetition of main points was 2.20 with a standard deviation of 4.63, while their final mean rate was 7.36 with a standard deviation of 8.80. Therefore it would seem that both role groups are responding to the classroom situation over time by more frequently repeating key points of the lesson for the class; reasons for the student teachers' relatively greater increase in utilizing this instructional strategy are unclear, however.

Motivates lesson. In contrast to the above, cooperating teachers showed more change than student teachers in motivating the lesson being observed. Note that evidence of several types of motivational techniques was tallied here, for example, providing students with choices among tasks and using examples in the lesson which were related to the children's interests. Cooperating teachers' overall mean rate of using motivational techniques with lessons was 6.37, compared to the student teachers' overall mean rate of 2.46. Student teachers' mean rate of using motivational strategies in the lesson changed only slightly, from 2.01 at Time 1 to 2.92 at Time 2. The cooperating teachers' mean rates were both higher, 4.84 at Time 1 and 7.90 at Time 2. Standard deviations for the cooperating teachers' behavior were also substantially larger than they were for student teachers (10.74 and 18.53 compared to 3.43 and 5.01).

Cues attention. The mean rates for each role group collapsed across time showed highly similar behavior patterns: cooperating teachers cued attention for academic work at a mean rate of 25.10 times per 100 student-hours with a standard deviation of 25.64. Student teachers, on the other hand, cued at a mean rate of 27.55 with a standard deviation of 25.04. When mean rates were considered separately for Times 1 and 2, however, it became clear that cooperating teachers were relatively consistent over time in the rate of cueing observed. At Time 1 cooperating teachers' mean rate of cueing was 24.92 (s. d. = 21.20), and at Time 2 it was 25.27 (s. d. = 30.00). In marked contrast was the change in rate of behavior observed among student teachers. At Time 1 they were cueing pupils' attention at a mean rate of 21.75 (s. d. = 21.55), whereas at Time 2 they had increased the mean rate of cueing to 33.36 (s. d. = 27.42).

Uses examples/demonstrates. Another instructional tactic coded was the use of concrete examples and/or the actual demonstration of how tasks may be completed. Obviously this could be accomplished in more than one way--the teacher may have, for instance, asked one student to solve a problem on the board while the others observed the process. Overall mean rates of the use of instructional examples were comparable across role groups: 12.44 for cooperating teachers (s.d. = 15.06), and 13.23 for student teachers (s.d. =

19.01). Both cooperating teachers and student teachers increased slightly in their use of examples over time, from 9.68 to 15.19 and from 11.56 to 14.90, respectively. Equally interesting was the observation that the cooperating teachers' standard deviations almost doubled from Time 1 to Time 2 (9.70 to 18.85) while the student teachers' decreased to a comparable level (21.00 to 17.17).

Questions. The last instructional management variable examined in this study was the teachers' use of process and/or product questions while conducting a lesson. This was one behavior which occurred at a higher overall mean rate for both cooperating teachers (56.81) and student teachers (54.56) than many of the other variables, although it was characterized by extreme variability (s.d. = 49.94 for cooperating teachers, and s.d. = 59.64 for student teachers). Both role groups showed a tendency to question students more as the semester progressed; cooperating teachers' mean rate at Time 1 was 50.52 (s.d. = 39.72) and at Time 2 was 63.00 (s.d. = 58.81), while the student teachers' mean rate at Time 1 was 40.29 (s.d. = 55.17) and at Time 2 was 68.83 (s.d. = 61.87).

Summary. In sum, then, the following comments may be made about the variables which were grouped into the instructional management category and whose means are reported in Tables 8.1, 8.3 and 8.4. Five variables, "Describes Objectives," "Waits for Attention," "Work Quality and Quantity," "Offers Explanations," and "Refers to Prior Lesson Content," showed shifts in which cooperating teachers and student teachers changed in different directions, i.e., one role group increased in rate of behavior while the other decreased. Interpreting the changes depends upon several factors, such as how similar the teachers and student teachers were at the beginning of the semester, and so on. Six variables showed both role groups moving in the same direction over time: three--"Direction Giving," "Monitors Understanding," and "Praises/Acknowledges"--decreased in mean rates over time for both role groups, while the remaining three--"Repeats Main Points," uses examples, and "Questioning"--increased in mean rates over time for both student and cooperating teachers. Three other variables--"Individual Assistance," "Motivates Lesson," and "Cues Attention," showed patterns in which one role group evidenced no substantial change in use of the strategy, while the other one either increasingly or decreasingly made use of it. Finally, one instructional management variable, that of the teachers' correcting student responses in class, showed virtually no change over time across either role group.

Managing Pupil Behavior

Four variables composed the second major category, Managing Pupil Behavior; "Rewards Appropriate Behavior," "Cues Appropriate Behavior," "Monitors," and "Movement Into and Out of the Room." The means for student teachers within the managing pupil behavior category ranged from 2.22 to 17.90 and for cooperating teachers from 5.28 to 16.99 (Table 8.5). When mean rates were examined separately for Time 1 and Time 2 (Table 8.6), results for cooperating teachers at Time 1 ranged from 4.64 to 17.54 and at Time 2 ranged from 9.11 to 18.42. For Time 1 the student teacher range was 2.25 to 15.70 while for Time 2 the range was from 2.18 to 20.10. Again, the ranges for student teachers were larger than those of the cooperating teachers. Mean rates and standard deviations for the four individual variables composing the managing pupil behavior category were also examined.

Rewards appropriate behavior. Tallies were made for each instance where the teacher responded to appropriate behavior (rather than academic work

323

Table 8.5

Means and Standard Deviations for Cooperating Teachers and Student Teachers for Managing Pupil Behavior

Managing Pupil Behavior	Mean CT	Mean ST	Standard Deviation CT	Standard Deviation ST
16. Rewards appropriate behavior	5.28*	2.22	9.00	3.97
17. Cues appropriate behavior	16.99	17.90	18.20	20.65
18. Monitoring	5.75	5.73	12.88	5.49
19. Movement into/out of room	10.37	12.48	13.21	15.26

* per 100 student hours

Table 8.6

Means and Standard Deviations of Cooperating Teachers and Student Teachers at Time 1 and Time 2 for Managing Pupil Behavior

	Time 1				Time 2			
	Mean		Standard Deviation		Mean		Standard Deviation	
Managing Pupil Behavior	CT	ST	CT	ST	CT	ST	CT	ST
16. Rewards appropriate behavior	4.64*	2.25	9.11	2.99	5.92	2.18	9.15	4.85
17. Cues appropriate behavior	17.54	15.70	18.42	14.40	16.43	20.10	18.45	25.64
18. Monitoring	7.01	3.55	15.23	5.08	4.49	3.91	10.27	6.00
19. Movement into/ out of room	12.53	11.12	16.39	15.98	8.21	13.84	8.93	14.79

* per 100 student hours

quality) with praise, tokens, or other methods of recognition. The mean rate of rewarding for cooperating teachers was 5.28 with a standard deviation of 9.00; for student teachers the mean rate was 2.22 with a standard deviation of 3.97. When mean rates were examined separately for Time 1 and Time 2, it was noted that cooperating teachers increased slightly (4.64 to 5.92) and student teachers decreased slightly (2.25 to 2.18) in their use of rewards. However, an increase in the amount of variation among student teachers at Times 1 and 2 (s.d. = 2.99, 4.85), as compared to the amount of variation among cooperating teachers (s.d. = 9.11, 9.15), was noted. In general, cooperating teachers rewarded appropriate behavior twice as often as student teachers but also displayed more variation among themselves. Cooperating teachers exhibited more stability in their rewarding behaviors over time.

Cues appropriate behavior. Each time the teachers informed students of standards for behavior before an activity began, tallies were recorded for the "Cues Appropriate Behavior" variable. The mean rate for the cooperating teachers on this variable was 16.99 with a standard deviation of 18.20 while the mean rate for the student teachers was 17.90 with a standard deviation of 20.65. When the means were examined for cooperating teachers and student teachers at Time 1 and Time 2, an interaction pattern was evident. Cooperating teachers remained fairly stable at Times 1 and 2, both in mean rates (17.54 and 16.43) and standard deviations (18.42 and 18.45), while student teachers increased in both means (15.75 to 20.10) and standard deviations (14.40 and 25.64). In summary, cooperating teachers began the experience cueing more than student teachers and ended the semester cueing less than student teachers, due largely to the increased variation among student teachers.

Monitoring. The third variable in the managing pupil behavior category was "Monitoring," defined as the teacher's scanning the room after procedure requests, or circulating around the room after making an academic assignment. The mean rate for cooperating teachers was 5.73 with a standard deviation of 12.88: for student teachers the mean rate was 3.73 with a standard deviation of 5.49. When means were examined for Time 1 and Time 2, cooperating teachers decreased in both mean rate (7.01 to 4.49) and in amount of variability (15.23 to 10.27) while student teachers remained relatively stable in both means (3.55 and 3.91) and amount of variability (5.08 and 6.00). In general, cooperating teachers monitored more often than student teachers but less often over time and with less variation among themselves.

Movement into/out of room. The fourth variable in the managing pupil behavior category was "Movement into and out of the Room." Each time students entered into or exited from the classroom, a tally was recorded. For cooperating teachers the mean rate was 10.37 with a standard deviation of 13.21; for the student teachers the mean rate was 12.48 with a standard deviation of 15.26. When data were examined at Time 1 and Time 2, an interaction pattern was present. The rate of movement managed by the cooperating teacher decreased over time (12.53 to 8.21) and became less variable (s.d. = 16.39 to s.d. = 8.93) while rate of movements managed by the student teachers increased over Time 1 and Time 2 ($\bar{x}$ = 11.12 and $\bar{x}$ = 13.84). Student teachers remained relatively stable in the amount of variation at Time 1 (s.d. = 15.98) and Time 2 (s.d. = 14.79). Thus, cooperating teachers directed more movement that student teachers at Time 1, accompanied by less variability among cooperating teachers at Time 2.

Summary. Cooperating teachers rewarded behavior and monitored at higher rates than did student teachers over time. However, for cueing behaviors and management of movement into and out of the room, cooperating teachers began the semester and student teachers ended the semester with the higher rates.

Appropriate Student Behavior

The third major category into which narrative data were grouped was entitled Appropriate Student Behavior. Six variables comprised this category: "Students Actively Participate," "Compliance with Teacher Requests," "Student Requests for Clarification," "Student Movement in Room--General," "Student Movement in Room--Materials," and "Student-to-Student Communication." Means for cooperating teachers on these variables ranged from 11.18 to 105.77 and for student teachers from 12.92 to 106.55 (Table 8.7). When means on the six variables were examined for Time 1 and 2 (Table 8.8), student teachers ranged from 13.85 to 91.76 and 11.99 to 121.33, respectively, while cooperating teachers ranged from 11.00 to 91.99 at Time 1 and 11.36 to 119.56 at Time 2. In general, ranges for cooperating teachers and student teachers were similar. Means and standard deviations for student teachers and cooperating teachers on each variable within the appropriate student behavior category will be discussed separately.

Students actively participate. When students were observed to be involved in classroom instructional activities, that behavior was tallied in the category, students actively participate. Participation may have consisted of volunteering information during a class discussion or asking an appropriate question during the lesson, for example. The mean rate on this variable for cooperating teachers was 105.77 with a standard deviation of 74.52; for student teachers the mean was 106.55 with a standard deviation of 84.16. When means were examined for Time 1 and Time 2, an interaction was apparent. Cooperating teachers at Time 1 had a slightly higher mean ($\bar{x} = 91.99$) than student teachers ($\bar{x} = 91.76$), but at Time 2 the order was reversed as the mean

Table 8.7

Means and Standard Deviations of Cooperating Teachers and Student Teachers for Appropriate Student Behavior

	Mean		Standard Deviation	
Managing Pupil Behavior	CT	ST	CT	ST
20. Students actively participate	105.77*	106.55	74.52	84.16
21. Compliance with teacher requests	21.27	19.92	22.01	25.44
22. Student requests for clarification	11.18	12.92	19.80	18.02
23. Student movement in room-general	33.19	38.33	28.33	37.31
24. Student movement in room-materials	16.28	18.55	18.42	21.41
25. Student to student communication	15.51	21.31	17.99	18.82

* per 100 student hours

Table 8.8

Means and Standard Deviations of Cooperating Teachers and Student Teachers at Time 1 and Time 2 for Appropriate Student Behavior

	Time 1				Time 2			
	Mean		Standard Deviation		Mean		Standard Deviation	
Managing Pupil Behavior	CT	ST	CT	ST	CT	ST	CT	ST
20. Students actively participate	91.99*	91.76	61.50	101.66	119.56	121.33	84.94	61.17
21. Compliance with teacher requests	24.42	22.05	24.11	29.95	18.12	17.80	19.80	20.54
22. Student requests for clarification	11.00	13.85	14.66	21.28	11.36	11.99	24.28	14.55
23. Student movement in room - general	35.07	38.44	30.71	45.70	31.31	38.22	26.40	27.72
24. Student movement in room - materials	14.46	17.96	13.10	14.96	18.10	19.15	22.76	26.77
25. Student to student communication	11.96	21.82	13.92	20.91	19.05	20.80	21.07	17.00

* per 100 student hours

rates for both groups increased. Student teachers had a mean of 121.33, and cooperating teachers had a mean of 119.56. Cooperating teachers became more variable over time (s.d. = 61.50, s.d. = 84.94) while student teachers became less so (s.d. = 101.66, s.d. = 61.77). In summary, the mean rate of active participation by students during instruction increased over time for both cooperating teachers and student teachers while mean rates for cooperating teachers became more varied and mean rates for student teachers became less varied.

Compliance with teacher requests. When students were executing procedural directions given by the teachers, tallies were recorded here. The mean rate of compliance with requests for cooperating teachers was 21.27 with a standard deviation of 22.01 and for student teachers, 19.92 with a standard deviation of 25.44. The mean rate for both student teachers and cooperating teachers decreased over time: the means for cooperating teachers decreased from 24.42 to 18.12 and the means for student teachers from 22.05 to 17.80. For both groups the amount of variability within groups also decreased: standard deviations for cooperating teachers decreased from 24.11 to 19.80 and for student teachers from 29.95 to 20.50. In general, as the semester progressed students responded less often to procedural requests made by teachers and students became less variable in their responses to the teachers within the two groups.

Student requests for clarification. When students raised questions about content, assignments, or procedures, tallies were recorded here. Mean rates and standard deviations were similar for both cooperating teachers ($\bar{x}$ = 11.18, s.d. = 19.80) and student teachers ($\bar{x}$ = 12.92, s.d. = 18.02). Although the means for student teachers were higher at Time 1 ($\bar{x}$ = 13.85) and Time 2 ($\bar{x}$ = 11.99) than the means of cooperating teacher ($\bar{x}$ = 11.00 and $\bar{x}$ = 11.36) at the same times, the difference was lessened as the rate of requests made by students of student teachers decreased. Although the mean rate of cooperating teachers remained fairly stable over time, the amount of variability increased (s.d. = 14.66, s.d. = 24.28); the reverse was true for student teachers who exhibited less variation (s.d. = 21.28, s.d. = 14.55) over time. In summary, students made more requests for additional guidance from student teachers overall than from cooperating teachers, but student requests declined for student teachers over time.

Student movement in room--general. Tallies on this variable recorded when any student left his/her seat for some purpose other than securing or depositing some type of instructional materials. Mean rate for general movement of students for cooperating teachers was 33.19 with a standard deviation of 28.33; for student teachers the mean was 38.33 with a standard deviation of 37.31. When the means were examined over time a stable relationship was noted between cooperating teachers and student teachers. Means for cooperating teachers ($\bar{x}$ = 35.07, $\bar{x}$ = 31.31) were lower than means for student teachers ($\bar{x}$ = 38.44, $\bar{x}$ = 38.22) at both Time 1 and Time 2; however, means for cooperating teachers did decrease over time. Both groups of teachers became less varied over time; the standard deviations of cooperating teachers decreased from 30.71 to 26.40 while the standard deviations of student teachers decreased more dramatically from 45.70 to 27.72. In general, the mean rate of general movement for students under the direction of student teachers was higher as the semester began and remained higher than the mean rate of cooperating teachers, which decreased over the semester.

Student movement in room--materials. Each time a student left his/her seat either to turn in materials or to pick up materials, the behavior was recorded here. The mean rate for cooperating teachers for student movement related to materials was 16.28 with a standard deviation of 18.42 while the mean rate for student teachers was 18.55 with a standard deviation of 21.41. This pattern of the higher rate for movement related to materials for student teachers persisted over time. The mean rates of movement for student teachers was 17.96 at Time 1 and 19.15 at Time 2; for cooperating teachers the mean rates for Times 1 and 2 were 14.46 and 18.10, respectively. Both groups of teachers also became more variable within the group over time as evidenced by the increased standard deviations. For student teachers the increase was from 14.96 to 26.77 while the increase for cooperating teachers was from 13.10 to 22.76. In summary, students increased in frequencies of movements related to materials over the semester for both cooperating teachers and student teachers, although the higher rate was always associated with the student teachers. The amount of variation among the cooperating teachers and the student teachers also increased over time.

Student-to-student communication. Whenever students legitimately conversed with each other the behavior was recorded here. The conversation was judged legitimate if stated directions clearly allowed for such communication or if the teacher observed but did not stop the conversation when no guidelines had been established. The mean rate for student communication was higher for student teachers ($\bar{x}$ = 21.31) than for cooperating teachers ($\bar{x}$ = 15.51). The variation within the groups of cooperating teachers (s.d. = 17.99) and student teachers (s.d. = 18.82) was similar. Over time the mean rates for student teachers exhibited less change and remained higher, both at Time 1 ($\bar{x}$ = 21.82) and at Time 2 ($\bar{x}$ = 20.80), than the mean rates for cooperating teachers at the same points ($\bar{x}$ = 11.96 and $\bar{x}$ = 19.05). Cooperating teachers exhibited less variation (s.d. = 13.92) than student teachers (s.d. = 20.91) at Time 1 but student teachers (s.d. = 17.00) became less variable than cooperating teachers (s.d. = 21.07) at Time 2. In summary, students conversed more often under guidance of student teachers although the difference between the two groups of teachers became almost non-existent at the end of the semester as frequency of conversation allowed under cooperating teachers rose.

Summary. For the Appropriate Student Behavior category, one major pattern emerged, general similarity of student behaviors associated with student teachers and cooperating teachers. Changes in the mean rates of student behaviors for "Compliance With Teacher Requests," "Student Movement in Room--General," and "Student Movement in Room--Materials" were parallel for student teachers and cooperating teachers. Mean rates on "Student Requests for Clarification" and "Student-to-Student Communication" converged, with the mean rates for cooperating teachers exhibiting more change than mean rates for student teachers. For the variable, "Students Actively Participate," an interaction pattern emerged with the mean rates for student teachers exceeding that of the cooperating teachers. On only one variable, "Compliance With Teacher Requests," did the mean rate for cooperating teachers exceed that of student teachers at the end of the semester.

Inappropriate Student Behavior

The fourth major category, Inappropriate Student Behaviors, contained only one variable. If the teacher indicated to some student that what the student was doing was unacceptable or if the teacher had posted rules which were operative during the observation and students were observed not complying with those rules, than tallies were recorded in the Inappropriate Student Behavior category. Furthermore, if behaviors were seen which the observer deemed unacceptable by common standards (fights, use of obscene language, throwing spit wads, etc.), these were also tallied even if the teacher did not see them or did observe them and did not react to them. The mean rate and standard deviation (Table 8.9) of inappropriate student behavior for cooperating teachers ($\bar{x}$ = 21.16, s.d. = 27.43) were almost identical to the mean rate and standard deviation for student teachers ($\bar{x}$ = 21.00, s.d. = 26.75). When mean rates were examined for Time 1 and Time 2 (Table 8.10), some interaction was noted. Cooperating teachers ($\bar{x}$ = 24.50) began the semester with a higher mean rate than student teachers ($\bar{x}$ = 19.48) and ended the semester with a lower mean ($\bar{x}$ = 17.82) than student teachers ($\bar{x}$ = 22.53). The variation among student teachers increased over the semester (s.d. = 15.52, s.d. = 34.97) while the variation among cooperating teachers decreased (s.d. = 38.95, s.d. = 19.18). It should be noted that the highest mean rate for inappropriate student behavior was obtained at Time 1 by cooperating teachers.

Summary. In conclusion, students exhibited more inappropriate behaviors under the cooperating teachers at the beginning of the semester and under the student teachers at the end of the semester. However, the overall rate of inappropriate behavior was not as high as at the end of the semester as it had been at the beginning.

Teacher Reaction to Inappropriate Behavior

Six variables comprised the fifth major category, Teacher Reaction to Inappropriate Behavior. These variables were "Cites Rules/Procedures," "Nonverbal Contact," "Desist Statement," "Punishment," "Criticism," "Ignores," and "Directs Behavior." The means on these variables (Table 8.11) ranged from .93 to 7.17 for student teachers and from 1.40 to 9.23 for cooperating teachers while standard deviations ranged from 2.66 to 14.10 for cooperating teachers and from 2.27 to 11.57 for student teachers. When time was

Table 8.9

Means and Standard Deviations for Cooperating Teachers and Student Teachers for Inappropriate Student Behavior

Inappropriate Student Behavior	Mean CT	Mean ST	Standard Deviation CT	Standard Deviation ST
26. Inappropriate student behavior	21.16*	21.00	27.43	26.75

* per 100 student hours

Table 8.10

Means and Standard Deviations of Cooperating Teachers and Student Teachers for Time 1 and Time 2 for Inappropriate Student Behavior

	Time 1				Time 2			
	Mean		Standard Deviation		Mean		Standard Deviation	
Inappropriate Student Behavior	CT	ST	CT	ST	CT	ST	CT	ST
26. Inappropriate student behavior	24.50*	19.48	33.95	15.52	17.82	22.53	19.18	34.97

* per 100 student hours

Table 8.11

Means and Standard Deviations for Cooperating Teachers and Student Teachers for Teacher Reaction to Inappropriate Behavior

	Mean		Standard Deviation	
Teacher Reaction to Inappropriate Behavior	CT	ST	CT	ST
27. Cites rules/procedures	1.95*	1.60	4.91	3.58
28. Nonverbal contact	2.77	2.56	5.73	5.80
29. Desist statement	8.79	7.17	12.02	11.57
30. Punishment, criticism	4.76	2.85	6.71	4.56
31. Ignores	1.40	.93	2.66	2.27
32. Directs behavior	9.23	6.59	14.10	11.49

* per 100 student hours

considered, the range of means (Table 8.12) at Time 1 for cooperating teachers was 2.06 to 11.78 while the range of student teachers was 1.59 to 9.60. At Time 2 the range of means for cooperating teachers was .42 to 6.90; for student teachers the range was .27 to 6.59. At Time 1 standard deviations ranged from 3.21 to 15.70 and from 2.87 to 14.38 for cooperating teachers and student teachers, respectively. At Time 2 the range of standard deviations was 1.81 to 12.26 for cooperating teachers and 1.20 to 9.84 for student teachers. Means and standard deviations for each variable for both cooperating teachers and student teachers will be presented separately.

Cites rules/procedures. Whenever the teacher made reference to class rules or procedures, defined as established routines, then tallies were recorded for this variable. For cooperating teachers the mean rate ($\bar{x}$ = 1.95) was slightly higher than that of the student teachers ($\bar{x}$ = 1.60), and behaviors were more varied (s.d. = 4.91) than those of the student teachers (s.d. = 3.58). When means were examined across time, an interaction pattern emerged. The mean rate for cooperating teacher dropped fairly dramatically between Time 1 ($\bar{x}$ = 3.48) and Time 2 ($\bar{x}$ = .42), while the mean rate for student teachers also dropped ($\bar{x}$ = 2.12, $\bar{x}$ = 1.09), although not as dramatically. The amount of variability among cooperating teachers decreased (s.d. = 6.53, s.d. = 1.39) as the amount of variability among student teachers remained stable (s.d. = 3.96, s.d. = 3.17). To summarize, cooperating teachers became more consistent over time as they cited rules or procedures in response to inappropriate behavior less often over the semester. Student teachers also cited rules and procedures less often over the semester, but still did so more often than did cooperating teachers near the end of student teaching.

Table 8.12

Means and Standard Deviations for Cooperating Teachers and Student Teachers for Time 1 and Time 2 for Teacher Reaction to Inappropriate Behavior

	Time 1				Time 2			
	Mean		Standard Deviation		Mean		Standard Deviation	
Teacher Reaction to Inappropriate Behavior	CT	ST	CT	ST	CT	ST	CT	ST
27. Cites rules/ procedures	3.48*	2.21	6.53	3.96	.42	1.09	1.39	3.17
28. Nonverbal contact	4.79	3.47	7.31	7.39	.76	1.64	2.34	3.56
29. Desist statement	11.78	9.60	13.53	14.38	5.79	4.75	9.73	7.44
30. Punishment, criticism	4.02	3.58	6.23	4.31	5.50	2.12	7.25	4.80
31. Ignores	2.06	1.59	3.21	2.87	.74	.27	1.81	1.20
32. Directs behavior	11.57	6.60	15.70	13.20	6.90	6.59	12.26	9.84

* per 100 student hours

Nonverbal contact. Nonverbal contact (eye gaze, touch, etc.) by a teacher with a student engaged in inappropriate behavior was the second variable in the Teacher Reaction to Inappropriate Behavior category. The mean rates and standard deviations for nonverbal contact for cooperating teachers ($\bar{x}$ = 2.77, s.d. = 5.73) and for student teachers ($\bar{x}$ = 2.56, s.d. = 5.80) were similar. When means were examined at Time 1 and Time 2, another interaction was evident; cooperating teachers began the semester with a higher mean ($\bar{x}$ = 4.79) than student teachers ($\bar{x}$ = 3.47) and ended the semester with a lower mean ($\bar{x}$ = .76) than did student teachers ($\bar{x}$ = 1.64). Both groups became less variable as time went on; standard deviations for cooperating teachers at Time 1 and Time 2 were 7.31 and 2.34, respectively, while standard deviations for student teachers were 7.39 and 3.56. In general, the incidence of nonverbal contact by teachers in reaction to inappropriate behavior decreased over time. However, student teachers exhibited a higher incidence than did cooperating teachers at the end of the semester.

Desist statement. When teachers told a student to stop a behavior, then a tally was recorded here. Again, the mean rates and standard deviations for cooperating teachers ($\bar{x}$ = 8.79, s.d. = 12.02) and student teachers ($\bar{x}$ = 7.17, s.d. = 11.57) were similar. The cooperating teachers had higher mean rates at both Time 1 ($\bar{x}$ = 11.78) and Time 2 ($\bar{x}$ = 5.79) than did student teachers ($\bar{x}$ = 9.60, $\bar{x}$ = 4.75). Note that both groups exhibited decreased rates over time. Both groups also became less variable over time; cooperating teachers had standard deviations of 13.53 and 9.73 at Time 1 and Time 2, respectively, while student teachers' standard deviations reflected a similar decrease from 14.38 to 7.44. In general both groups of teachers were similar in their use of desist statements in reaction to inappropriate student behaviors. Use of the strategy decreased over time with the cooperating teachers making more desist statements than student teachers.

Punishment/criticism. Another teacher reaction to inappropriate behavior was punishment or criticism which was recorded when the teacher demeaned, detained, criticized, isolated, or by other means imposed a negative sanction in response to unacceptable behavior. Cooperating teachers exhibited a higher mean ($\bar{x}$ = 4.76) and a larger standard deviation (6.71) than did student teachers ($\bar{x}$ = 2.85, s.d. = 4.56). The two groups of teachers within class exhibited a pattern of divergence over time. Cooperating teachers had a higher mean rate at Time 1 ($\bar{x}$ = 4.02) than did student teachers ($\bar{x}$ = 3.58). The mean rate for cooperating teachers increased at Time 2 ($\bar{x}$ = 5.50) and decreased for student teachers ($\bar{x}$ = 2.12). The amount of variability among cooperating teachers also increased (s.d. = 6.23, s.d. = 7.25) while student teachers exhibited about the same amount of variability at Time 1 (s.d. = 4.31) and Time 2 (s.d. = 4.80). In general, cooperating teachers punished and criticized more than student teachers, with the difference between the groups increasing over time.

Ignoring. "Ignoring" was recorded when the observer was reasonably sure that the teacher observed the behavior and did not choose to react to that behavior. Cooperating teachers had a higher mean ($\bar{x}$ = 1.40) with a larger standard deviation (s.d. = 2.66) than did student teachers ($\bar{x}$ = .93, s.d. = 2.27). Both groups of teachers exhibited lower mean rates over time; cooperating teachers decreased from 2.06 to .74 and student teachers from 1.59 to .27. Both groups also became less variable, with standard deviations for cooperating teachers changing from 3.21 to 1.81 as student teachers changed from 2.87 to 1.20. To summarize, both cooperating teachers and student teachers ignored students less over time when the students engaged in unacceptable behavior, although cooperating teachers continued to ignore more often than student teachers.

Directs behavior. This variable was coded when the teacher gave students engaged in inappropriate behavior explicit directions for behavior. The mean for cooperating teachers was higher ($\bar{x}$ = 9.23) with a larger standard deviation (s.d. = 14.10) than was the mean rate and standard deviation for student teachers ($\bar{x}$ = 6.59, s.d. = 11.49). At Time 1 the cooperating teachers had a mean rate of 11.57 and the student teachers had a mean of 6.60; at Time 2 the mean rate for cooperating teachers had decreased ($\bar{x}$ = 6.90) until it was slightly below that of the student teachers ($\bar{x}$ = 6.59). Both groups displayed similar decreases in the amount of variability. The standard deviation for cooperating teachers decreased from 15.70 to 12.25 and 13.20 to 9.84 for student teachers from Time 1 to Time 2. In general student teachers directed the behaviors of misbehaving students half as often as did cooperating teachers at the beginning of the semester and maintained their level of reaction over the semester, while the cooperating teachers decreased their directing behavior, matching that of the student teachers.

Summary. To summarize the results for Teacher Reaction to Inappropriate Behavior, several patterns emerged. On two variables, "Desist Statements" and "Ignores," the two groups of teachers displayed parallel, decreasing mean rates of behavior, with cooperating teachers maintaining the higher rate. On another variable, "Punishment/Criticism," cooperating teachers exhibited an increasing rate while student teachers decreased over time. For three variables, "Cites Rules/Procedures," "Nonverbal Contact," and "Directs Behavior," student teachers exhibited the lower mean rate at the beginning of the semester and the higher mean rate at the end. At the conclusion of the semester the cooperating teachers were making desist statements, giving punishment or criticism, and ignoring inappropriate behavior more often than were student teachers, while student teachers were citing rules and procedures, making nonverbal contact, and directing behavior more often.

Materials

The following five variables were included in the broad category of Materials (Tables 8.13-8.14): "In and Out" (passing out and collecting materials from the students), "Used by the Teacher" (use of instructional materials by the teachers), "Incomplete" (materials given to students were incomplete), "Insufficient" (materials were insufficient in quantity), and "Product" (students had some tangible product for which they were held accountable at the end of the lesson). It should be noted that the apparent negative orientation to some of the variable names was not reflective of negative bias on the part of the researchers, i.e., the RITE staff was not looking for problems or mistakes in the classroom. Rather, it was often the case that information in the narrative records was so inexplicit as to make the coding judgment of "sufficiency" or "completeness" nearly impossible. However, observers did tend to note when a teacher or student teacher would have to give directions like "you (pupils) need to share the scissors with your neighbors because there aren't enough for everyone." For this reason--the clarity and certainty with which negative judgments could be made--those variables were stated negatively.

Materials in and out. This variable was an index of the frequency with which materials were reported being handed out to students or collected back from them. Cooperating teachers and student teachers had overall means and standard deviations which were highly similar ($\bar{x}$ = 8.52, s.d. = 10.48 for cooperating teachers, $\bar{x}$ = 7.75, s.d. = 10.44 for student teachers). However,

Table 8.13

Means and Standard Deviations of Cooperating Teachers and Student Teachers for Materials

	Mean		Standard Deviation	
Materials	CT	ST	CT	ST
33. In and out	8.52*	7.75	20.48	10.44
34. Used by teacher	30.18	28.87	25.16	34.94
35. Incomplete	.29	.95	1.81	5.01
36. Insufficient quantity	.61	.00	2.16	.00
37. Product	2.55	1.23	5.09	3.90

* per 100 student hours

Table 8.14

Means and Standard Deviations for Cooperating Teachers and Student Teachers for Time 1 and Time 2 for Materials

	Time 1				Time 2			
	Mean		Standard Deviation		Mean		Standard Deviation	
Materials	CT	ST	CT	ST	CT	ST	CT	ST
33. In and out	7.77*	6.77	7.01	9.60	9.28	8.72	11.38	13.23
34. Used by teacher	27.30	24.05	20.26	42.18	33.07	33.69	26.05	29.53
35. Incomplete	0.00	0.00	0.00	0.00	0.57	1.89	7.05	2.56
36. Insufficient quantity	0.30	0.00	0.98	0.00	0.91	0.00	0.00	2.91
37. Product	2.66	0.87	4.05	2.84	2.44	1.58	4.78	6.06

* per 100 student hours

both groups revealed a trend towards higher means as the semester progressed: cooperating teachers' mean at Time 1 was 7.77 and had increased at Time 2 to 9.28; student teachers' mean at Time 1 was 6.77 and increased to 8.72 by Time 2. Note that the increases were not particularly dramatic, but they did appear to be consistent for both student and cooperating teachers.

Used by teacher. This variable specifically examined the use of materials by the teacher as instructional aids--use of the blackboard, the overhead projector, books or teachers' manuals, and so on. Manipulatives used in a demonstration (e.g., how to cut the construction paper for the day's art lesson) were included in the tally; those used for other purposes (cutting construction paper for the bulletin board while the class was doing reading seatwork) were not. As one would expect, the means were relatively high: cooperating teachers' mean rate across Times 1 and 2 was 30.18, with a standard deviation of 25.16; student teachers' mean rate across Times 1 and 2 was 28.87, with a standard deviation of 34.94. As the semester progressed, the means of both groups increased, but the change on the part of student teachers was particularly dramatic. At Time 1, the cooperating teachers' mean rate of use of materials for instruction was 27.30 (s.d. = 20.26), while at Time 2 it had increased to 33.07 (s.d. = 29.53). For the student teachers, the mean rate at Time 1 was 24.05 (s.d. = 42.18) while the mean at Time 2 was 33.69 (s.d. = 26.05). In particular, the combined shifts made by the student teachers have probably been noticed, such that while they increased the apparent frequency of use of instructional materials to a level that was equivalent to that of their cooperating teachers, they also decreased the variability of this behavior to a level compatible with that of their cooperating teachers (the s.d. at Time 2 is only two-thirds of the Time 1 s.d.).

Incomplete. This variable was coded when teachers gave materials to classroom pupils which could not be used correctly without further instruction (particularly if the teacher or student teacher had to correct the information which was already there, for example). As one would anticipate, the overall means were quite low ($\bar{x}$ = .29, s.d. = 181 for cooperating teachers, and $\bar{x}$ = .95, s.d. = 5.01 for student teachers). Student teachers appeared to have more trouble by the end of the semester with incomplete materials than did their cooperating teachers: $\bar{x}$ = 0 at Time 1 (s.d. = 0) and $\bar{x}$ = .57 at Time 2 (s.d. = 2.56) for the cooperating teachers; while $\bar{x}$ = 0 at Time 1 (s.d. = 0) and $\bar{x}$ = 1.89 at Time 2 (s.d. = 7.05) for the student teachers.

Insufficient. Student teachers were never found in coded narratives to have inadequate numbers of worksheets, texts, scissors, etc. Cooperating teachers were observed to have insufficient quantities on a few rare occasions. The cooperating teachers' mean rate of having inadequate numbers of supplies at Time 1 was 0.30 (s.d. = .98), whereas at Time 2 it had increased slightly to 0.91 (s.d. = 2.91).

Product. The final variable pertaining to classroom materials concerned whether or not students were held accountable for furnishing the teacher with some evidence of having completed a lesson. Although the overall mean rates were again quite low ($\bar{x}$ = 2.55, s.d. = 5.09 for cooperating teachers; $\bar{x}$ = 1.23, s.d. = 3.90 for student teachers), it was clear that cooperating teachers showed very little change in the frequency with which they requested and were observed to receive students' products. Their mean rate of assigning and requesting students' products was 2.66 times per 100 student-hours at Time 1 (s.d. = 4.05) and 2.44 at Time 2 (s.d. = 6.06). Student teachers, on the other hand, showed an initial mean rate of .87 (s.d. = 2.84) and a Time 2 mean rate of 1.58 (s.d. = 4.78). Thus, as they gained more classroom experience and more instructional responsibility, student teachers' behavior with regard to students' work began to resemble that of the cooperating teachers more.

Summary. The two variables in the Materials category which showed the highest mean frequencies were the "Used by Teacher" variable and the "In and Out" variable. It was observed that both student and cooperating teachers increased their rate of exchange of student materials by the end of the semester. Also noted was the increased similarity over time of the "Used by Teacher" variable for both student and cooperating teachers. The same pattern held true for the "Product" variable, although it was much lower in mean frequency of occurrence than the preceding variables. Finally, despite the extremely low means reported for the variables, "Insufficient Quantity," and "Incomplete," it was apparent that the student teachers had slightly more trouble with the completeness of their materials for class than did the cooperating teachers, while the reverse was true for insufficiency of materials.

Administrative Activity

The RITE staff expected that a certain amount of time and attention would be devoted to fairly routine administrative tasks about the classroom; grading or checking students' work and recording the grades, assigning and administering make-up work to students who have missed assignments, taking roll, and a variety of other chores such as checking free and reduced-price lunch cards, collecting milk money from students, and so on. To obtain some information about how much time was taken by these activities, relative to activities in other areas, the narrative records were coded for four administrative activity variables: "Grading," "Make-Up Work," "Taking Roll," and "Other" (Table 8.15 and 8.16).

Table 8.15

Means and Standard Deviations of Cooperating Teachers and Student Teachers for Administrative Activities

Administrative Activity	Mean		Standard Deviation	
	CT	ST	CT	ST
38. Grading	1.29*	1.37	2.88	3.71
39. Make-up Work	.16	.15	.99	.93
40. Roll	.45	.47	1.42	1.44
41. Other	.61	1.89	2.71	4.18

* per 100 student hours

Table 8.16

Means and Standard Deviations for Cooperating Teachers and Student Teachers for Time 1 and Time 2 for Administrative Activity

	Time 1				Time 2			
	Mean		Standard Deviation		Mean		Standard Deviation	
Administrative Activity	CT	ST	CT	ST	CT	ST	CT	ST
38. Grading	1.46*	2.57	2.98	4.96	1.11	0.18	2.84	0.79
39. Make-up work	0.31	0.30	1.40	1.32	0.00	0.00	0.00	0.00
40. Roll	0.20	0.52	0.88	1.61	0.71	0.42	1.00	1.30
41. Other	0.69	1.84	3.07	4.11	0.53	1.94	2.39	4.35

* per 100 student hours

Grading. The overall means for cooperating teachers and students teachers were low, 1.29 (s.d. = 2.88) and 1.37 (s.d. = 3.71), respectively. While the cooperating teachers seemed to maintain a low but relatively constant rate of grading over the semester ($\bar{x}$ = 1.46 at Time 1, s.d. = 2.98; $\bar{x}$ = 1.11 at Time 2, s.d. = 2.84), a clearly different pattern occurred among the student teachers. Their mean rate of grading at Time 1 was 2.57 times per 100 student-hours (s.d. = 4.96), while at Time 2 it was reduced to 0.18 with a standard deviation of 0.79. Clearly, they were responsible for grading more at the start of the semester than they were at its end.

Make-up work. The most pronounced feature of this variable was its rarity. The overall mean for cooperating teachers was 0.16 (s.d. = .99), and for student teachers, 0.15 (s.d. = .93). Also, as surprising as it may seem, the only signs of administering make-up work to students occurred during the Time 1 coded observations; all data on the Time 2 observations were null values. The Time 1 mean for cooperating teachers was 0.31, with a standard deviation of 1.40; while for student teachers the Time 1 mean rate was 0.30, with a standard deviation of 1.32.

Roll. The next administrative activity indexed in the present study was the frequency with which teachers were observed taking attendance. Overall means were virtually identical for student and cooperating teachers ($\bar{x}$ = 0.45, s.d. = 1.42 for cooperating teachers; $\bar{x}$ = 0.47, s.d. = 1.44 for the student teachers). Again, the mean rates at Times 1 and 2 were uniformly low, all less than one time per 100 student-hours ($\bar{x}$ = 0.20, s.d. = 0.88 at Time 1, $\bar{x}$ = 0.71, s.d. = 1.80 at Time 2 for cooperating teachers; $\bar{x}$ = 0.52, s.d. = 1.61 at Time 1, $\bar{x}$ = 0.42, s.d. = 1.30 at Time 2 for student teachers).

Other. A catch-all, this variable was intended to index the frequency with which the additional tasks described above (checking lunch cards, collecting milk money, etc.) occurred during the school day. Here again, the overall means were low, but the student teachers apparently had to deal with more of these activities than did the cooperating teachers ($\bar{x}$ = 0.61, s.d. = 2.71 for the cooperating teachers; $\bar{x}$ = 1.89, s.d. = 4.18 for the student teachers). This pattern held true at both Times 1 and 2 ($\bar{x}$ = 0.69, s.d. = 3.07 at Time 1, $\bar{x}$ = 0.53, s.d. = 2.39 at Time 2 for the cooperating teachers; $\bar{x}$ = 1.84, s.d. = 4.11 at Time 1, $\bar{x}$ = 1.94, s.d. = 4.35 at Time 2 for the student teachers).

Summary. In sum, none of the administrative activity variables seem to reflect the often-expressed feeling that teachers are overburdened by administrative trivia. It is equally possible that the methods used for data collection were directly associated with the lack of observed administrative activity. That is, because teachers and student teachers knew observers would be in their classrooms, they may have made special efforts to insure that the time was spent on instruction and not on administrative activities; there is no way to determine whether or not, or to what degree, such an effect may have been operating.

Discussion

The findings which resulted from the analysis of the narrative data fell into four general groups, those where the cooperating teachers and student teachers (1) changed in an interactive manner, (2) changed in a like manner, (3) became more alike, or (4) exhibited diverging trends over the course of the semester. These trends will each be discussed separately.

Interactive patterns of change. The most common pattern of change over time between cooperating teachers and student teachers was an interaction pattern seen for 15 of the 41 variables examined in the description of teaching. For three of the variables the cooperating teacher exhibited the lower mean at the beginning of the semester and the higher mean at the end of the semester. For two variables, grading and roll taking, this trend was not surprising. As the student teachers assumed a more active role in the class over time, cooperating teachers often had more opportunity to sit and grade student work while they still maintained a presence in the room. The increased observation of the cooperating teacher taking roll may have again reflected the switch in roles in the classroom; often one of the first tasks delegated to the student teacher was roll taking. The cooperating teachers may have resumed this role as the student teachers assumed more instruction and management responsibilities.

For one variable, however, the increase in cooperating teacher behavior and the decrease in student teacher behavior defies simple explanation. Over the semester, the student teacher used examples and demonstrated less often during instruction while the cooperating teacher increased in these behaviors. At this point, suggesting a reason for this trend would be pure speculation.

For 12 of these 15 variables, cooperating teachers exhibited a higher mean of behavior at the beginning of the semester and student teachers displayed the higher mean at the conclusion of the semester. This pattern may be easily explained given one basic assumption, that over the semester the student teachers gradually assumed more responsibility in the classroom, and as a logical result, exhibited an increase in recorded behaviors. In other words, the increased number of behaviors of the student teachers coupled with a decrease in the number of behaviors attributed to the cooperating teachers was to be expected. Behaviors which fell into this pattern included "Waits for Attention," "Referring to Prior Lesson Content," "Repeats Main Points," "Cues Attention, Academic," "Questioning" (Instructional Management); "Cues Appropriate Behavior" and "Movement Into/Out of Room" (Managing Pupil

Behavior); "Students Actively Participates" (Appropriate Student Behavior); Inappropriate Pupil Behavior; "Cites Rules/Procedures," "Nonverbal Contact," and "Directs Behavior" (Inappropriate Student Behavior). The picture which emerged did imply more assumption of responsibility in the classroom by the student teacher, who organized movement of students in coordination with other activities outside the classroom (reading lab, music class, etc.) and dealt more with inappropriate behaviors in addition to eliciting increased student participation in class. One could also argue that student teachers adapted certain behaviors, exhibited by cooperating teachers during instruction and deemed "effective" by certain research (Barnes, Note 21); for example, reviewing, securing attention before beginning instruction, and asking questions. While these trends could reasonably be expected, other patterns are less easily explained.

Similar patterns of change. On nine variables, cooperating teachers and student teachers both changed over time in a like manner. For two of these nine variables, both groups exhibited an increase in frequency. Means for both teacher groups increased over time for "Student Movement in Room--Materials" and "In and Out." It would appear that teachers in this sample simply used more materials and allowed students more freedom of movement, at least in relation to materials, in the class as the semester progressed.

For the remaining seven variables where the change of the two groups was parallel over time, both cooperating teachers and student teachers decreased in the frequency of the behavior observed. The decrease for cooperating teachers again may be explained by their reduced activity in the classroom. In a general sense, however, the decrease for student teachers is more difficult to explain. Cooperating teachers still exhibited higher means than student teachers, even though means decreased for both groups for "Monitors

Understanding," "Praises/Acknowledges," "Compliance With Teacher Requests," "Desist Statements," and "Ignores." It should be noted that monitoring students' understanding of both content and procedure involved in an assignment or lesson by the teacher has been related to effective teaching (Barnes, Note 21). The decrease in frequency of this teacher behavior may be somewhat disappointing; the reason for the decrease is again open to speculation. In like manner, although the research findings regarding academic praise are less clear (Brophy, 1981), common lore of present day classrooms includes the desirability of high rates of praise. The decrease in academic praise is even more problematic when the increase in the rate of active participation in class by the students is recalled. The teachers may have been less likely to praise academically, when the decrease in the mean for both groups of teachers for the variable "Compliance With Teacher Requests" is considered. Students were apparently becoming less cooperative for both cooperating teachers and student teachers. This result may provide evidence for the cooperating teacher perception often voiced in interviews (Defino, et al., Note 11) that classroom management was very important. Some cooperating teachers, in fact, stated that one of the major problems with having a student teacher was resuming control of the class after the student teacher had left, with routines disrupted and standards unenforced. These cooperating teachers stated that they had to regain control of student behavior and reteach appropriate behaviors. In any case, both cooperating teachers and student teachers made fewer desist statements and ignored inappropriate behavior less often, even as the mean rate of inappropriate behavior remained stable over time. These teachers either chose some other reaction to inappropriate behavior as the semester progressed, or became less aware of it. Because variations in teacher and student behavior throughout the school year have been documented by others (Evertson and Veldman, 1981), perhaps they should be expected in most classrooms observed over time.

Both student teachers and cooperating teachers exhibited decreased rates of direction-giving and administration of makeup work. Although both groups gave directions at lower rates over the course of the semester, the student teachers gave directions more often. This decrease would seem to be a logical one since students probably learned the routine of the classroom and the typical task requirements of the teacher (Doyle, Note 22) as the semester progressed. The observation of the administration of makeup work was so infrequent by both groups that discussion of those results would be virtually meaningless.

Convergent patterns of change. On seven variables cooperating teachers and student teachers became more alike in the mean rate of behavior over time. One possible explanation for this trend would be mutual effects within each pairing. Given the artificial time constraint, this explanation may be only a partial one. If, however, more time had been available and the trends had continued, an interaction pattern might have resulted similar to the one that was discussed earlier. If that were the case, some of these increases may be simply explained by the student teachers' assumption of more responsibility in the classroom. That possibility could explain the higher means for student teachers on "Corrects" Process/Product," "Student Request for Clarification," and "Student-to-Student Communication." The assumption of increased responsibility by the student teachers could also provide the simplest explanation for the decreases of means for the cooperating teachers' on "Offers Explanations," "Monitoring," "Using materials," and "Product.

Divergent patterns of change. On ten of the 41 variables the cooperating teachers and student teacher became less alike in their teaching behaviors as the semester progressed. In six cases the cooperating teachers exhibited a higher rate on a variable at the beginning of the semester and had an even higher rate at the conclusion of student teaching, while the student teachers displayed an opposing trend. In certain instances the student teachers did not adopt the "effective" teaching behaviors (Barnes, Note 21) employed by the cooperating teachers with increasing frequencies; these included "Describes Objectives,""Work Quality and Quantity," "Motivates Lesson," and "Rewards Appropriate Behavior." The failure of student teachers to adopt and, in fact, their diminished use of these behaviors is disappointing and requires further investigation before an adequate explanation can be offered. The means for cooperating teachers also increased in two other areas: "Punishment, Criticism" and "Insufficient Quantity." Both of these trends for cooperating teachers are disturbing and contrary to commonly recommended teaching practice (Emmer, et al. Note 19; although it should be noted that the mean frequency of occurrence for the latter behavior was quite low).

On four variables, student teachers displayed higher means than cooperating teachers at the first of the semester and still higher means at the end of the semester, while the cooperating teachers began and ended at a lower rate. Throughout the semester student teachers had higher means on "Individual Assistance," "Student Movement in Room--General,' "Incomplete," and "Other" (e.g., not grading, roll, or makeup work). Since student teachers often assumed paperwork tasks both as a help to the cooperating teacher and to become familiar with the class routine early in the semester (Defino, et al., Note 11), it is quite possible that the higher initial rate for student teachers reflects this early role assumption which was augmented over the semester. The same explanation seems reasonable for the student teachers' higher rates of individual assistance; student teachers often began to integrate themselves into the classroom by circulating and interacting with individuals as a first step toward assuming responsibility in the classroom. For student teachers neither the higher rates for general student movement nor the higher rate for use of incomplete materials are easily explained. The increased rate for the use of incomplete materials is certainly contrary to generally accepted practice.

To summarize, the pattern of change where an interaction was present, and the student teachers were the ones who attained the higher mean at the end of the semester, was probably the logically expected pattern given the organization of the student teaching experience. The same may be said of the change pattern where cooperating teachers and student teachers converged. On the other hand, the pattern of change where the behavior rates of both cooperating teachers and student teacher decreased in a similar manner was more unexpected, especially since several of the variables for which frequencies decreased were those associated with "effective" teaching. Further investigation seems warranted both for the variables associated with this change pattern and for variables associated with the divergent pattern of change. Especially worthy of further investigation would be those variables ("Describes Objectives," "Work Quality and Quantity," "Motivates Lesson," and "Rewards Appropriate Behavior") where the student teachers displayed lower mean rates as time went on while the cooperating teachers had increasing rates.

Limitations

The results reported in this chapter are subject to several limitations, most specifically related to sample selection and data collection. Because cooperating teachers for the intensive sample were recommended for inclusion based upon reputational excellence, some bias was introduced through the sample selection process. Furthermore, the recommendation process was more rigorous at one site than the other (Defino, et al., Note 11). Although one could argue that the matching of student teachers with cooperating teachers was random at one site (State), student teachers were more often placed with particular cooperating teachers or in certain environments at the second site (Metropolitan). Furthermore, all participants in the present study were volunteers who received remuneration for their participation.

A second limitation is related to the data collection involving two teachers within one classroom. Because of the realities of the public school situation, it was impossible to rotate teachers into other classrooms or to temporarily pair different sets of cooperating teachers and student teachers. In statistical language, the pairs of teachers were nested within classrooms in such a manner that teacher behaviors were inexorably tied to particular classroom contexts. It is quite possible that these same individuals may have behaved differently given new environments (Good, Note 23).

A third limitation specific to the narrative data involved the unevenness of data collection, both in quality and time of the observations. Some observers displayed a tendency toward simplicity versus complexity in their narrative notes. During the data analysis stage, efforts were made to control for this observer bias by excluding those very simplistic narratives from the data pool. Despite the best intentions of the RITE staff in scheduling all observations within a planned time period, problems also arose in this area. Participants were sometimes absent or the school schedule had changed for the day, for example. In any case the RITE staff did conduct all observations as close to the scheduled time as possible, with a two week span usually required to make a complete cycle of observations.

Finally, the presence of two possible subjects in the classroom posed additional problems. The decision was made to focus intently upon only one teacher for the required period, taking notes on the other teacher (if present) only as time and the activity level allowed. At the end of the observation period the focus switched to the other teacher. As a result, some information was often gathered on the teacher who was not the focus of the observation. However, the quality of the information was typically sketchy and discontinuous in nature. These data were excluded from the present analysis.

Summary

This chapter has reported the results of the narrative data for student teachers and cooperating teachers. After an initial overview of data collection and analysis, descriptive statistics for categories of variables and individual variables were presented for cooperating teachers and student teachers. These were examined both collapsed across the semester and broken into early and late time periods to examine change patterns. Finally, a discussion of results and limitations concluded the chapter.

CHAPTER 9

CONCLUSIONS

The preceding chapters in this final report have presented findings of a multi-site, multi-method study of preservice clinical teacher education, typically known as student teaching. The purposes of this chapter are to reiterate certain of those findings and draw conclusions about student teaching from what has preceded. The chapter is organized according to the same outline which guided the presentation of the findings. Discussion focuses upon personal and professional characteristics of the participants, change in those characteristics over the student teaching semester, the contexts of student teaching, the supervision of student teachers, outcomes of student teaching, and teaching. Additionally, conclusions suggested by aggregates of findings are presented.

Personal and Professional Characteristics of Participants

This study of student teaching integrated a number of instruments designed to measure the degree of presence of certain professional and personal characteristics of student teachers, cooperating teachers, and university supervisors. The constructs studied included empathy, flexibility, self-esteem, locus of control, conceptual level, cognitive style, vocabulary, educational preference, concerns about teaching, expectations, performance, satisfaction, and perceptions of work life. Certain of the instruments were administered on several occasions, others only once. Thus, for several of the constructs it is possible to examine participant change over time.

In general, there were few site differences across the range of constructs measured by the study. State University participants were more progressive in their educational philosophy whereas Metropolitan University participants were more empathic. Also, Metropolitan cooperating teachers report greater flexibility than their State role counterparts.

Regarding sample differences, intensive versus general, there were no systematic differences. This finding lends support to the generalizability of the findings derived from the in-depth data collected from the smaller intensive sample. These data included interviews, journals, and observations of teaching.

The participants differed by role on only a few of the constructs. In terms of concerns, the differences were conceptually related to concerns theory in that student teachers were more concerned with others' perceptions of personal adequacy than were cooperating teachers or university supervisors. This pattern persisted in the greater concern for task expressed by cooperating teachers. For other characteristics there were few differences. Across role groups the participants reported similarly high self-esteem, empathy, strong internal locus of control and progressive educational preference.

The cognitive abilities of the participants, on the other hand, were discovered to be markedly different. Of particular interest was the finding that student teachers scored very low on the vocabulary measure (at about the 15th percentile of the norm reference group), cooperating teachers at about the mid-point, and university supervisors at the 63rd percentile. If one considers vocabulary an indicator of general intelligence, their performance on the vocabulary measure suggests that student teachers have much weaker cognitive skills than teachers already in teaching. (This speculation was reinforced when participants reported their high school class standings.) The conceptual level measure scores illustrated another difference in that the university supervisors' scores were significantly higher than either the cooperating teachers' or the students teachers'. (It should be noted that all participants' conceptual level scores were low.)

Several conclusions can be drawn from these findings. First, although one could hypothesize that, almost by definition, participants in student teaching would differ by role, this, for the most part, was not the case for subjects in this study. Participants, with the exception of certain concerns and cognitive measures, were more alike than different. Second, the concern expressed in professional and lay circles regarding the cognitive ability of new teachers was partially reinforced by the scores of student teachers on the vocabulary measure included in this study. Third, although both the university and the public school settings differed dramatically on certain demographic variables, the participants were more alike across the settings than they were different. This leads to the additional conclusion that, in this study, with few exceptions the teaching force at both preparatory and career levels is more similar than different.

Participant Change

Testimony from teachers and teacher educators suggests that the student teaching experience is a powerful intervention. It was informally hypothesized by the RITE research team that this intervention would result in participant change regarding the personal and professional constructs given attention by this study. To examine change six of the instruments were administered more than once during the student teaching semester and repeated measures analyses were conducted separately for each participant group.

Each of the participants experienced some limited change over the course of student teaching on a few of the variables. The student teachers demonstrated the most change, followed by the cooperating teachers and, finally, by the university supervisors. The last group was the most stable.

Among the changes observed were the decrease in concerns for all participants, the increase in flexibility for student and cooperating teachers, and the trend toward increased conservatism regarding educational philosophy by both student and cooperating teachers. These were the only significant changes noted.

It can be concluded that participants in this study changed modestly in terms of three of the constructs included in the present study (concerns, flexibility, educational preference). For other constructs, however, there were no changes noted across the sample. This leads to the speculative conclusion that the student teaching experience, at least for this group of participants, was not powerful enough to alter what may be deep-seated personal and professional characteristics. It is important to keep in mind that the general impression of student teaching as an effective purposeful intervention has been conventional wisdom for many years and has seldom been subjected to rigorous scrutiny. The findings from the present study suggest the need for refinement and reexamination of this impression.

The Context of Student Teaching

The universities and public school sites which provided placements for student teachers in this study differed on several institutional and demographic variables. Differences were noted in terms of ethnicity of students, busing as a desegregation device, school neighborhood characteristics, parent attitudes, and special programs for pupils. Differences in the university contexts were noted for student teaching placement practices, certification procedures, requirements for student teaching activities, selection and training of university supervisors and cooperating teachers, and role requirements for cooperating teachers.

The findings regarding the contexts of student teaching suggest several conclusions. First, although the elementary and secondary school contexts provide evidence of sharp differences in terms of certain demographic and institutional variables, there are few such parallel differences in the personal and professional characteristics student and cooperating teachers bring to them. The issue of the effects of match/mismatch between teachers and settings is raised by this conclusion. Second, the character of the school setting seemed to have minimal impact upon the student teaching experience. Third, the character of schooling across settings was observed to be more similar than different. Fourth, the university contexts demonstrated like characteristics with principal differences vested in the role of the university supervisors.

These conclusions promote the understanding that, despite context differences, student teaching moves ahead in similar patterns across settings. This raises the question of whether student teaching, in its practices and protocols, has developed a set of implicit guidelines and operating principles which drive the experience despite the apparent differences (and related differential needs and expectations) in the contexts in which it occurs. This statement should not be taken to mean that there were not any differences in practice across settings, only that the differences were not dramatic or apparently systematically planned to "fit" the sites.

One major context difference was found in relation to the university supervisor role. At Metropolitan the supervisor shared membership in both the university and the school system organizations. The supervisor position was a specific role in the school system and persons who aspired to it went through similar selection procedures to those customarily associated with other school system administrative/supervisory positions. The supervisor was then appointed to the faculty of the Department of Teacher Education. At State the supervisor was typically a graduate student with little, if any, institutional membership in the school system. The observations of the RITE research team lead to the conclusion that the dual membership at Metropolitan resulted in university supervisors who were more aware of the formal and informal norms of both the university and public school settings. Also, the Metropolitan supervisors appeared to be more knowledgeable about the student teachers due to prior experiences in providing demonstrations and limited clinical experiences for them. This was especially apparent in the activities and judgments demonstrated as a consequence of placing students in particular schools and classrooms. (Although it was thought that this dual membership might result in a markedly different knowledge base for guiding student teaching from the supervisor's position, such appeared not to be the case.)

Supervision and Formative Evaluation of Student Teachers

A critical aspect of any program of clinical education is the supervision process. In the student teaching experience the supervision of the prospective teacher is undertaken principally by his/her cooperating teacher and, to a lesser extent in terms of contact if not influence, the university supervisor. The character of the supervision is considered by most teacher educators as the most important feature of the student teaching experience.

The findings of the present study suggest several conclusions regarding this sample and its supervision interactions. First, the supervision is dominated by the cooperating teachers. This dominance was observed in terms of process (the cooperating teachers led the student teachers through the semester by assuming the major role in conference conversations and the student teachers aquiesced) and product (the cooperating teachers introduced the topics of conference conversation and the student teachers followed the leader).

Second, supervision interactions were characterized as being situation-specific and temporally immediate. That is, the conversation of supervision conferences dealt with events in a particular classroom at a particular point in time. Very rarely did the talk between cooperating teacher and student teacher focus upon what might be called alternate means of understanding and treating classroom events.

Third, two quite different orientations seemed to guide cooperating teachers as they moved through the experience with their student teachers. On the one hand, some cooperating teachers took the view that "the student teacher needs to learn my way of conducting instruction," the implicit assumption being that this was the reason that the person had been selected to be a cooperating teacher. On the other hand, some cooperating teachers tried to provide opportunities for the student teacher "to find his/her own way of teaching," the implicit assumption being that there is an optimal "comfort level" of teaching and the student teachers needed to find it.

Fourth, it can be concluded for the participants in this study that there was little attention paid to using (or inventing) a codified knowledge base which could or would guide the student teacher as he/she began the work of teaching. For example, the supervisory interactions focused in large measure upon classroom management but this was more from a "let's see if this works" stance than from a rationale which supported certain research-derived management procedures. There were few instances of references to learning theory, conceptualizations of instruction, curriculum paradigms, the nature of child growth and development, and the like.

Fifth, the supervision observed and analyzed for this study did not attend to the role of the teacher beyond immediate and specific classroom participation. That is, interactions with other educational professionals, the nature of teaching as work, the role of teacher as institutional decision maker, and other non-instructional role specifications were not attended to.

Sixth, it was somewhat surprising to note that the talk about student teaching (as opposed to classroom teaching) as a process was limited. Roughly four times as much talk was devoted to classroom events as was devoted to the activities, protocols, and requirements of the student teaching experience.

Seventh, student teachers overwhelmingly reported satisfaction with the student teaching experience and approval of their cooperating teachers' roles in that experience. This was a more positive response than student teachers reported in relation to the work of their university supervisors who were seen as people who could have been more helpful.

Eighth, the participants in this study saw the experience largely in interpersonal terms rather than professional or institutional ones. The supervisory conferences, journal entries, and interviews of subjects testified again and again to the dominance of the affective response as a criterion area for judging the experience. Student teachers liked the experience "because the cooperating teacher was so warm and welcoming." Cooperating teachers noted that their student teachers were successful "because they were so good with and to the children." University supervisors saw their roles as being "someone the student teacher can come to for any reason whatever." And so on. These rather global ratings of others' affective personae stand in marked contrast to the situation-specific, time-bound, classroom-related talk which dominated the supervisory interactions of cooperating teachers and student teachers.

Last, analysis of the data from supervision conferences reveals the relative dearth of evaluative comments. As noted earlier in this report, it is possible that the broaching of a subject carried an implicit evaluative statement. If so, the evaluation of student teachers focused, in this study, primarily on materials of instruction and lesson methods, the two dominant content themes of supervision conferences.

Outcomes

As discussed in Chapter 7 of this report, there is little public agreement as to what the outcomes of student teaching should be. This lack of agreement was problematic for the present study in that it was necessary to decide from an array of possibilities what outcome measures should be used to determine what constitutes "effective" student teaching.

Four outcomes were included in the study: perceptions of members of triads of their colleagues' performance, satisfaction with the experience, the degree to which expectations were met, and institutional evaluations. These outcomes were assessed independently and also correlated with the personal and professional characteristic scores noted above.

It can be concluded that participants in this study were generally satisfied with their experiences. Also, expectations for the experience were either met or exceeded across the sample of subjects. The performance ratings also indicated a generalized self-reported belief that individuals performed skillfully, as did triad colleagues.

Institutional evaluations were characterized by high ratings and a lack of variability. This condition can lead to one of two conclusions. Either the student teachers in this study were exemplary in person and performance or the institutional evaluation systems (and the procedures by which they are used) are in need of refinement in order to discriminate among large numbers of prospective teachers for the purpose of making decisions about rewards (e.g., grades) and subsequent appointments to teaching positions. Grade inflation is a commonly-expressed theme among teacher educators. It seems from the data collected for this study that that theme continues to be in need of systematic and rigorous attention.

The statistical manipulations of the outcome measure scores allow the conclusion that expectations, satisfaction, performance rating by self and others, and institutional evaluations are significantly and/or positively related to one another. This, then, leads to the conclusion that there may be a pervasive "ethos" associated with student teaching; a transcendent set of implicit beliefs and values that guides and directs the practice and evaluation of student teaching experiences. As noted elsewhere in this report, there appears to be a lack of a systematic, codified knowledge base but there also seems to be a persistent belief that student teaching is rooted in positive interpersonal relationships and focused upon specific situations in specific classrooms at specific times. Perhaps expectations, satisfaction, performance ratings, and evaluation forms are tapping this latter set of possible implicit protocols rather than depending upon agreement about what generic knowledge, skill, and values should be made present to student teachers.

For this study, it can be concluded that empathy is a consistent predictor of the four outcomes. (This is conceptually consistent with the hypothetical conclusion noted immediately above.) To a lesser extent, self-esteem was also related to subsets of the outcome variables.

Cognitive constructs are not related to the outcome measures used in the present study. Of particular interest and some surprise was the lack of a relationship between verbal facility (as indicated by vocabulary) and outcome measures for a workgroup whose principal mode of interaction is the spoken and written word. As suggested above, there is a possible connection between the affective and interpersonal and a successful student teaching experience. Examination of written documents, journal pages, and scores on the vocabulary measure validated the results of statistical procedures which demonstrated no significant relation between language and positive outcomes.

From a variety of subsets of data examined for this study it can be concluded that the attention given to desired outcomes for student teaching is fragmented and lacking in both systematic thought and development of appropriate technology. Although there may be an overriding and agreed-upon system of thought regarding what should occur as a consequence of the student teaching experience, the present study did not find it articulated. What was found was a variety of perceptions, some formal in the form of institutional policy/program statements and some informal in the form of individual cooperating teachers' expectations. Certainly, the adequacy of the technology to evaluate the experience can be questioned in terms of an undergirding knowledge base and the narrow range of the final evaluations themselves.

Teaching

Student teachers and cooperating teachers were observed in teaching situations as part of the study. These observations took the eventual form of systematic narratives of classroom life and were coded using a system designed specifically for this purpose by RITE staff.

It is assumed by most that a desirable student teaching experience is one in which the student teacher assumes incrementally more responsibility for instruction under the guidance of an expert on teaching. The observation data provide some evidence that this occurred although not to the extent that one might expect.

It can be concluded that student teachers, in general, assumed teaching duties by beginning with small group instruction (usually in reading) and moved into whole group instruction (again, usually in reading). The number of days and weeks that passed until this occurred, however, was variable. Although one of the universities in the study had a so-called "pacing guide" suggesting a natural sequence, there was little evidence that this guide was influential upon practice. The situation (the nature of the classroom in interaction with the estimated ability of the student teacher) seemed to be the principal variable affecting this differential rate of assumption of teaching responsibilities.

Also, the numbers of instances in which the research team was able to observe student teachers in full command of an entire class were few. Cooperating teachers were seldom absent from the classroom and when present were most often engaged in instruction or in monitoring student behavior even while the student teacher was nominally in charge of instruction. This conclusion is not surprising when one considers certain professional and societal phenomena. The move toward accountability of teachers for outcomes of students on a one-to-one basis was mentioned by several cooperating teachers as reasons for "holding onto the reins" in the classroom. The stress currently being placed upon acquisition of basic skills was also noted by cooperating teachers as reason enough to "grab every minute of instructional time you can." As has been noted elsewhere, the belief by cooperating teachers that they are ultimately responsible for what happens in the classroom (and the outcomes of those happenings) causes many of them to be reluctant to give a neophyte teacher complete control of classroom events.

For these reasons and others we conclude that the cooperating teachers in this study acted in a conserving manner and provided fewer opportunities for student teachers to assume (and become familiar with) full responsibility than might be expected or, in fact, desired.

Cooperating teachers and student teachers, both within group and across groups, demonstrated little variation in teaching practice. This is not surprising in terms of specific dyads of cooperating teacher and student teacher in that one would assume a certain amount of modelling effect. It is surprising, however, to note so little across the groups in that the teaching was being carried forward in markedly different settings. As noted in the discussion of context, it is concluded that teachers in this study are more alike than they are different. This conclusion is reinforced by the prevalant basic skills thrust of instruction in the sample classrooms. Reading and language arts dominated instruction with mathematics a somewhat distant second. The typical pattern of small group, teacher-led instruction followed by seatwork was found in almost every classroom with some attempts at individualization also observed. Although there are certainly alternate modes of conducting reading instruction, one would expect to see less variability there than in, for example, social studies instruction. Although it is possible to speculate that the classroom observations occurred at times when skills instruction would dominate, testimony of subjects provides further evidence that little beyond skills was part of the practiced curriculum in the settings.

In terms of management of student behavior, it can be concluded for the subjects in this study that this aspect of teaching deteriorated during the course of the semester. That is, although rates of inappropriate behaviors by students remained relatively stable over the semester, students complied less often with requests made by cooperating and student teachers. In addition, teachers reacted less often to inappropriate behavior over the semester. Without a control group of subjects, however, we are unclear as to whether this is a function of having a student teacher in the classroom or a naturally occurring phenomenon embedded in the dailiness of classroom life.

From data sets drawn from interviews, audiotapes of supervision conferences, and observations of teaching, it can be concluded that there is little knowledge among this sample regarding the past decade's research findings regarding "effective" teaching. That is, those teaching behaviors consistently correlated with positive pupil outcomes. The relations between certain teaching behaviors and pupil outcomes were seldom, if ever, discussed or substantiated in research terms. The practices which were promoted were rooted in an implicit assumption that one should do "what works" with little reference to a criterion for determining effectiveness. The practices observed were only sporadic in their match with the body of knowledge about effective teaching. And the expectations for student teachers held by cooperating teachers were seldom marked by specific teaching behaviors which were considered desirable from a research justification.

Research Procedures

The study reported herein used multiple methods, examined practice in a variety of sites, and employed quantitative and qualitative analytic procedures. The difficulties associated with this methodological complexity are great. The yield, however, is also great.

We believe that the use of multiple data sources is crucial to obtain as true a picture of classrooms and teachers as possible. In particular the use of multiple qualitative data sources in this study pointed out discrepancies in how student teaching activities were carried forward and how they were viewed by participants. This incongruity may not have surfaced had only a self-report method been used in place of collecting data about the actual event itself.

The way in which the qualitative data were organized and eventually reduced could be generalized to other studies where such data sources as interviews, conferences, journals, and observations are used. In particular, studies which focus on teachers and their professional work could find these systems of analysis particularly helpful.

Through the development of the methods for analyzing the qualitative data, the following theme emerged which might guide others who attempt to study classrooms: Researchers must allow the nature of the data to give rise to the researchers' schema for analysis, the argument here is to delay interpretations until the data have had an opportunity to "speak for themselves."

In addition, steps must be taken to ensure as much validity and reliability as possible in the collection and analysis of qualitative data. These steps include training those who are to collect the data to acceptable levels of agreement, training those who are to analyze the data to acceptable levels of agreement, building in follow-up checks to see if quality is maintained over time, taking adequate amounts of time and thought to permit coding schemes to be derived from careful and intensive examination of the raw data, and so on.

Discussion of Conclusions

The discrete findings in the chapters preceding this one and the conclusions drawn here suggest some overall impressions of student teaching as it was observed for this study. These statements are less precise in nature and dependent upon aggregating sets of findings such that relatively global judgments can be made about the experience.

First, the disciplined inquiry into schooling in general and teaching in particular which has characterized the past several decades has apparently made little impact upon the policies and practices of student teaching, at least for the institutions and subjects included in the present study. The growing understanding of what teaching behaviors are associated with pupil outcomes was conspicuous by its absence. The relation of the teacher and the workplace received little disciplined attention. The nature and kind of curriculum options available for teachers appeared to be assumed as narrow and restrictive. The range of roles which could be assumed by pupils in classrooms was likewise assumed as narrow (i.e., passive receiver of knowledge and skill).

Second, participants in the student teaching experience as observed in this study can be characterized as dedicated, well-meaning, and caring individuals who base their actions in a service orientation. That is, the cooperating teachers and university supervisors operate out of a perspective which promotes the well-being and comfort of the self rather than one which acts upon a set of carefully articulated performance standards for professional practice. A persistent attention to creating a "satisfying" set of learning opportunities for prospective teachers is necessary, of course, but may be insufficient in terms of helping these same students of teaching become expert in relation to providing instruction for learners.

Third, student teacher participants in this study were exposed to situation-specific teaching strategies rather than to options for selection decisions. The cooperating teachers seldom acknowledged that a given problem or issue in the classrooms could be treated in a variety of ways dependent upon judgments about characteristics of the students or the problem. To a degree, this is understandable when one realizes that the cooperating teachers' dominant concerns were for the elementary and secondary pupils in classes. To the extent that the student teachers will go on to assume teaching responsibility for same or very similar classroom groups, this practice may make some sense. However, given the possible range of school situations which could be faced by prospective teachers, it seems inadvisable to restrict their options during what is an important apprentice period. (Metropolitan University requires two semesters of student teaching and teacher educators there note that placements are often differentiated for the reasons articulated here.)

Fourth, awareness of policies, expectations, purposes, and desirable practices is not widespread across participants in the student teaching experience. It was rare that university- and school-based teacher educators agreed upon, or could even articulate, the policies and practices which were supposed to guide student teaching. (At the level of procedures [e.g., completing a final evaluation form, meeting schedules, etc.] there was greater awareness and agreement.) It was rare when a student teacher, cooperating teacher, or university supervisor reported knowledge about the institutional formalities which should be in place in any of the settings.

Fifth, there was only minimal evidence that the student teaching programs studied were integrated substantively or ideologically into the university preservice programs of instruction. There appeared to be no carefully conceptualized "point of view" driving the experiences. The best example of an articulated program was in certain of the school-based methods courses provided by university supervisors at Metropolitan University. When questioned, student teachers had difficulty articulating relationships between their student teaching and their other professional learning opportunities. Further, it was common for cooperating teachers to state the position that it was up to them to provide instruction in teaching as opposed to "the theory that they (student teachers) get at the university." Needless to say, knowledge of "theory" was not seen by most participants as valuable for the execution of practice.

Sixth, there were few instances of demonstrated policy, practice, or personal linkages between the university and the public school settings. Although the school districts had been serving as student teaching sites for the universities for many years, the participants in this study provided little testimony regarding any systematic relationships between the institutions over time. The most common theme was that the student teachers provided the relationship. In the case of Metropolitan, this conclusion must be modified somewhat in that the university supervisors were longstanding members of both institutions although the impact of that relationship appeared to be principally upon the student teachers rather than upon the schools and systems as organizations.

Seventh, the student teaching experience can be characterized somewhat as the teaching profession has been -- as a "lonely" occupation. In the same way that practicing teachers tend to be isolated from their colleagues by the nature of the school organization and by the ways in which schools have been designed, the student teacher-cooperating teacher dyad appears to be isolated from other dyads and, indeed, from other cooperating teachers and student teachers. (This, of course, is less so for student teachers who are typically required to meet in groups for purposes of auxiliary instruction.) It was very rare that cooperating teachers reported working together with other cooperating teachers in a peer group. Student teachers, likewise, reported few interactions around the topic of student teaching outside of their immediate involvement with a particular cooperating teacher.

Eighth, the student teaching experience as a "gatekeeping" or sorting function appears to be functioning minimally. The absence of public and enforced standards of performance more than likely contributes to the fact that few of the student teachers in this study were deemed to be less than satisfactory. Only one student teacher was counseled out of the program. Very few student teachers received average ratings by cooperating teachers or university supervisors. Observations, interviews, and questionnaire responses suggested to RITE staff that use of a more finely-tuned system of supervision and evaluation would have provided university officers and potential employers with more useful information regarding the degree of teaching success demonstrated by student teachers.

Last, there is still a host of questions to be answered about the student teaching experience. These questions include the individual (e.g., what are the consequences of differential "profiles" of personality characteristics upon the prospective teacher), the institutional (e.g., what are the primary sources of the dichotomy of perspectives held by school-based and university-based teacher educators), the professional (e.g., what role in preservice teacher education could be played by teacher organizations), the ideological (e.g., do particular "world views" influence student teachers' classroom activity), and the societal (e.g., what cultural variables are most influential upon a prospective teacher's decisions about teaching).

This report has presented findings and conclusions drawn from a large-scale study of preservice clinical teacher education. The study has provided the field with a comprehensive descriptive statement about what many consider to be the most valuable and influential component of professional teacher education. It is hoped that the overall report and its specific aspects will be used by researchers and practitioners as we continue to work toward ever more effective and thoughtful ways of providing high quality teaching to the communities of this nation.

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